

Long -term prognosis and aftercare in short-term inpatient psychotherapy of personality disorders

A randomised clinical trial of two methods of aftercare

Moniek Thunnissen

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Long-term prognosis and aftercare in short-term inpatient psychotherapy of personality disorders

A randomised clinical trial of two methods of aftercare

Lange termijn prognose en nabehandeling na kortdurende klinische psychotherapie bij patienten met persoonlijkheidsstoornissen

Een gerandomiseerde klinische studie over twee vormen van nabehandeling

(met een samenvatting in het Nederlands)

Proefschrift

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Door Moniek Thunnissen

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Voor Lex en Inge.

Chapter 1. General introduction

Can aftercare after successful inpatient psychotherapy help patients translating their symptomatic improvement into better functioning in work and relationships? Which format of aftercare works better? And can we predict which patients will show better results? These are the questions which will be answered in this thesis.

In this introduction we present an outline of the research described in this thesis, along with the background to the study and its aims. We introduce the group of patients indicated for inpatient psychotherapy and present a model of the long-term course of personality disorders. Two different views on aftercare are described, on which the two formats of aftercare in this study were based. The setting of the research is described, followed by a patients' case history. We go on to describe the results of a pilot study and present the two formats of aftercare, the re-integration training and the booster sessions. Finally the aims of the study and the research questions of this thesis are discussed.

Inpatient psychotherapy: where and for which patients?

Personality disorders are long-standing, pervasive dysfunctional patterns of cognition, affectivity, interpersonal relations, and impulse control that cause considerable distress. Individuals with personality disorders often have many symptomatic complaints, poorer functioning in work and relationships, and a high use of mental health resources. There is evidence that psychotherapy, in general, is an effective treatment for such personality disorders (Leichsenring & Leibing, 2003). Other research indicates that patients with personality disorders need long and intensive treatment to reach recovery (Perry, Bannon & Ianni, 1999).

In the Netherlands various special programs have been developed for patients with personality disorders: long-term and short-term psychotherapy, either as an inpatient or outpatient, day treatment programs, and psychotherapy programs for adolescents (Wagenborg, Tremonit, Hesselink & Koning, 1988; Nugter, van Bragt & Kumeling, 1998). One of the specialized centers where psychotherapy programs for patients with personality disorders have been developed since 1957 is the *Viersprong* in Halsteren, the Netherlands. Patients are referred to the *Viersprong* from other mental health care institutes in the Netherlands. In this Center for Psychotherapy the inpatient programs vary in duration between 3 and 12 months, for different

groups of patients, adults and adolescents. A variety of out-patient and day-treatment programs is also available.

The adult patients in the inpatient programs are in general those patients for whom outpatient psychotherapy had insufficient results. Their problems were too persistent to solve in outpatient psychotherapy or the patients showed too much resistance to change. Patients in the long-term inpatient programs (duration up to 12 months) differ from those in short-term programs (duration three to six months) that they often suffer from more severe personality problems and have a weaker ego structure, leading to more extensive problems in functioning in work, social and intimate relationships. They often didn't finish their education and come into treatment at a younger age (in their twenties, while patients in the short-term inpatient programs are in their thirties in general). Both groups of patients suffered from emotional neglect in their youth, or were traumatised in different ways (death of one of their parents, physical, sexual or emotional abuse, severe bullying at school, a serious, chronic disease in the patient or in the family). Both groups are motivated to follow inpatient psychotherapy, are capable of functioning in a group and of thinking psychologically about themselves. Patients in the short-term inpatient program are able to formulate a focus in their problems, which can lead to a treatment contract to fulfill in three months.

Long term prognosis of personality disorders and aftercare

The programs for inpatient or day treatment for people with personality disorders in the Netherlands have been studied extensively (SWOPG 2002, 1999 and 1997). The results show a statistically significant decrease in symptoms at the end of the programs and at one-year follow-up, and a reduction in use of mental health services. Nevertheless, one year after the end of treatment, nearly half the patients were still receiving professional mental health care, and the majority was still not working.

This is not surprising in a chronic condition like a personality disorder, where relapse is common. Recovery is not a final situation but a stage in a dynamic process, the result of the patient's continuous attempts to cope with internal and external factors that could provoke a relapse or recurrence. Some experts conclude that effective psychotherapy must be intermittent and focal, throughout the person's life (Cummings & Cummings, 2000).

The following scheme can be applied to the course of personality disorders (after Roth & Fonagy, 1996; De Jonghe & Swinkels, 1998):

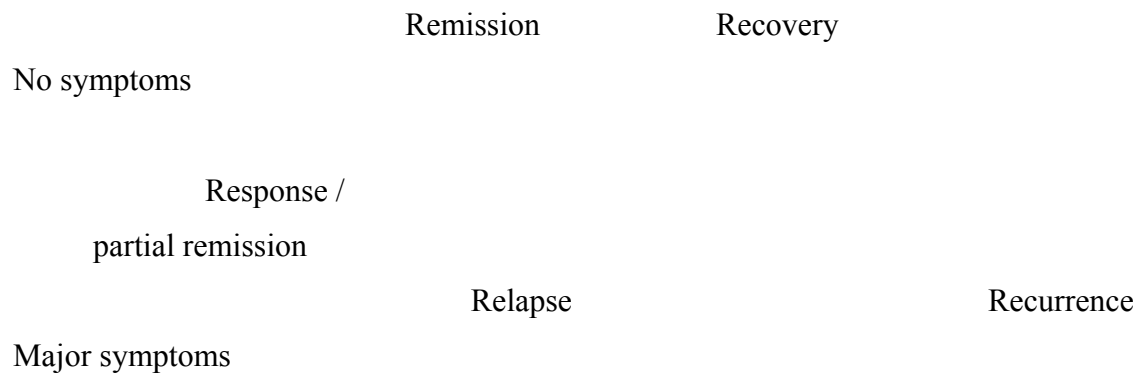


Figure 1. Remission, relapse, recovery and recurrence.

Definitions:

- response: improvement, for example, 50% less intense symptoms
- partial remission: improvement but still more than minimal symptoms
- remission: a relatively short period without symptoms
- recovery: a longer period of remission (2-4 months)
- relapse: recurrence of symptoms during the period of (partial) remission
- recurrence: a new symptomatic episode after recovery.

Consolidation of the treatment results can be reinforced by aftercare. Sometimes aftercare is part of the treatment and based on the knowledge of chance of relapse (Bergin & Garfield, 1994; Whisman 1990), for example, in cases of substance abuse (De Leon, 1991). From research in substance abuse patients we know that relapse among drop-outs is higher than

among treatment completers and that length of stay in treatment in general is negatively correlated with relapse. The longer the period of abstinence during and following primary treatment, the less frequent and shorter the relapse episodes are (De Leon, 1991).

There are different views on which strategies are effective to maintain change (Whisman, 1990). Booster sessions are based upon the belief that continued contact with the therapist will help maintain treatment gains (Eysenck, 1963, in Whisman, 1990; Hersen, 1979, in Whisman, 1990; Paykel, Scott, Cornwall, Abbott, Crane, Pope & Johnson, 2005). Most studies (30 studies in 18 years) reviewed by Whisman concern a cognitive-behavioral treatment followed by cognitive-behavioral boosters. Maintenance sessions were found to significantly enhance behavior change in 58% of the studies with a trend towards enhancement in several other studies. However, in several of these studies, maintenance sessions served only to delay the onset of relapse, not prevent it.

Another approach is the view that maintaining change involves mechanisms that are different from those operating during the initial change process, e.g. reinforcing the subjects' self-efficacy, consolidation of coping skills and extension of the therapy regimen into the subjects' social environment (Lambert & Bergin, 1994; Whisman, 1990). The insights and skills learned in therapy are consolidated and trained in situations outside the therapy and in re-integration into society. People learn to avoid stressful situations and how to use coping strategies; they are given help in finding a job and enlarging their social network. A core concept is *self efficacy* – belief in the patient's own power and skills (Bandura, 1977, in Whisman, 1990).

The two aftercare programs described in this thesis are based on these two different views: the re-integration training on the view that maintaining change requires a different approach; and the booster sessions on the view that continued contact with the same therapist consolidates the treatment gains. We come back to this later in the description of the two aftercare programs.

Short-term inpatient psychotherapy at the *Viersprong* in Halsteren

The research described in this thesis took place at the *Viersprong* in Halsteren. This center has developed a short-term inpatient program (STIP) of three months, based on psychodynamic principles and transactional analysis. Short-term psychotherapy has grown in popularity during the last few decades (Wells & Phelps, 1990). It includes several different treatment models (Garfield, 1998; McCullough Vaillant, 1997; Gustafson, 1986). Characteristics of short-term, insight-oriented psychotherapy are:

- The method focuses on a core conflict (Malan, 1976);
- Insight-oriented and cognitive elements are combined to create corrective emotional experiences (Sifneos, 1979; Strupp & Binder, 1984);
- The psychotherapist adopts an active, supportive, directive and sometimes paradoxical approach (Davanloo, 1990);
- Central themes include separation, letting go of old relationship patterns and mourning in the present for experiences of loss in the past (Piper, McCallum & Azim, 1992);
- Aim of the treatment is thinking, feeling and acting differently by changing old patterns of behavior (Goulding & McClure-Goulding, 1979).

All these characteristics are integrated into the short-term inpatient psychotherapy program (STIP, *Kortdurende Klinische Psychotherapie*) at the *Viersprong*. The program combines insight-oriented elements from psychoanalysis with the principles of cognitive therapy into one model, the transactional analysis. Transactional analysis is a theory of personality development, intrapsychic functioning, and interpersonal behavior, developed by the Canadian psychiatrist Eric Berne. The techniques in transactional analysis are aimed at structural change (in the “Child ego state”) and social control (through the “Adult ego state”). The unfolding experience of the therapeutic relationship enables understanding of the client’s intrapsychic structure (Cornell & Hargaden, 2005). The language of transactional analysis is helpful for describing the interpersonal and intrapsychic processes. In the psychotherapy sessions the redecision model (Goulding & McClure-Goulding, 1979) is used, in which patients formulate in a therapeutic contract how they want to change their patterns of thinking, feeling and behavior. Often the core conflict is an impasse between restriction and autonomy (Thunissen, Duivenvoorden & Trijsburg, 2001). Particularly in a short-term program with a fixed end, themes like separation, saying goodbye and letting go are prominent. The program includes group psychotherapy, psychomotor- and art therapy, and sociotherapy in a therapeutic environment.

To give an impression of the program, we outline the treatment and follow-up of a patient who participated in the study, and who serves as a model for a typical patient taking part in this program.

Case history of a typical patient

Saskia was a 38-year old woman who was afraid of dying because she had had cervical cancer eight years ago. She had feelings of insecurity, anxiety of failing or being rejected, and mood

changes. Outpatient treatment with a psychologist yielded insufficient result and she was referred to the *Viersprong* for the three-month inpatient psychotherapy program.

History of present illness

Since she had cervical cancer eight years ago, Saskia has no longer trusted her body, and every unusual physical sensation made her fear that the cancer was recurring. She also had a deep feeling of inadequacy and a fear of being rejected. She had problems in trusting people, was always on her guard, and had built a wall around herself to avoid being hurt. Her mood changes were rapid, from feeling scared or sad, to being cheerful. She had no sleeping or eating problems.

Mental status

She dressed in hippy fashion, and arrived with her husband who also wore clothes from the 1960s and had his hair in a plait. She gave an impression of being distant and defensive from her firm and obstinate appearance, although she reported feeling inferior and anxious.

There were no signs of delusions or thinking disorders, but her concentration and memory were slightly impaired. Her mood was dysphoric; she never had the feeling of being good enough and was easily disappointed in herself and others. She was inclined to react fiercely, and radiated 'don't touch me' and 'attack is the best defense'.

Family and social history

She had one brother, who was two years older and both her parents were still alive (father 69 years old and mother 68 years old). She was born on the day John F. Kennedy was shot, and her parents attributed a special meaning to this coincidence: from that moment on, her birth was connected to the death of a person she didn't know but who was much more important than she was. Saskia grew up to be scared of suffering and dying. Her father was an insecure and anxious man, obsessed by death and suffering, and fearful in his social relationships. Her mother was more sociable, but also superficial and not very good at nurturing. In a material sense her childhood offered everything possible (e.g. music and ballet lessons), but the home was emotionally cold and characterized by fights and an unsafe atmosphere.

From puberty onwards, her brother was negative, manipulative and destructive, both verbally and physically. Her parents couldn't handle him and often gave in to his demands at her expense. Her brother eventually landed a high managerial position, but he didn't do well in his relationships and was at that time getting divorced for the third time.

During her own puberty Saskia felt more and more lonely and neglected. She became convinced she always had to struggle for what she needed – and that she always lost this struggle. She finished high school and started a university course in archaeology and art history. She couldn't finish the course because her parents refused to support her financially for longer than four years (and she needed another two years). They didn't approve of her choice of her study, and wanted to give the money to her brother. She still considered this to be a major injustice and confirmation that she had nothing to say and was always on the losing end. She did finish a secretarial course, which she didn't like, and had had many different jobs, from cleaning to working in a shop. She was living on social support and had no idea of what kind of work she would like to do for a living.

She had a long-term relationship between the age of 18 and 29 years. After a year of several different sexual relationships, when she was 30 she started another long-term relationship with a man working in the construction industry. They weren't living together but had a satisfying emotional relationship; neither wanted children. After her operation for cervical cancer, sexual contact proved difficult and painful, but otherwise their physical relationship was satisfying.

Medical history

Her birth and early development were normal; she was a quiet baby and seldom cried. When she was 30 years old, she was diagnosed with cervical cancer and part of her ovaries and uterus were removed. Since then she has had physical complaints (pain in the lower part of her body, painful intercourse, an irregular menstrual cycle, and some insensitivity in her abdomen). She can still have children, although with difficulty, but she doesn't want them. Since the operation all the check ups had been ok, although every year she worried about them.

At intake she felt tired, dizzy and sweaty, had heart palpitations, a dry mouth, headache and stomach ache. She ate healthily (vegetarian and organic food), used homeopathic medication, drank alcohol only if she went out for a meal, and didn't smoke or use drugs.

Psychodynamic diagnosis

Saskia was the younger of two children. Because her elder brother had behavioral problems, there were a lot of family fights and tension, so that Saskia felt neglected, unloved, and ridiculed if she showed her vulnerabilities: as a reaction she retreated. She seems to have

identified more with her father, an insecure and anxious man, who had problems in showing his feelings.

She avoided any work activities with pressure, challenges and interpersonal contacts; she was anxious about being criticized, rejected or a failure. She saw herself as inadequate and inferior, which she hid behind a strong facade to prevent being attacked and feeling hurt. Inside, she still felt very angry and sad. Getting cancer at age 30 reinforced her feelings of insecurity.

DSM-IV classification

Axis I: generalized anxiety disorder 300.02

Axis II: avoidant personality disorder 301.82

Axis III: status after cervix carcinoma and surgery; somatic tension complaints, no current medication.

Axis IV: no work, bad relationship with her brother, anxiety about yearly cancer check-up

Axis V: 65 (current) – 65 (past year).

Differential diagnosis

This patient showed four items of avoidant personality disorder: she avoided interpersonal relationships for fear of criticism or rejection; she was reserved in intimate relationships for fear of being humiliated, was preoccupied with rejection in social situations, saw herself as inadequate and inferior. She also had one item of paranoid personality disorder (PD): anxiety that others will manipulate or cheat her; two items of dependent PD: lack of self-confidence and an unrealistic fear of being left alone, and two items of obsessive-compulsive PD: perfectionism and being excessively conscientious.

On Axis I she showed a Generalized Anxiety Disorder especially about her physical condition. The fact that she had had cervical cancer eight years earlier, was a trigger for both the Axis I as well as the Axis II conditions; despite positive yearly check-ups she was still anxious about the cancer returning. The Generalized Anxiety Disorder was treated with psychotherapy, but this was not effective, possibly because of the underlying personality disorder. A more intensive inpatient group program was advised to treat the personality pathology.

Treatment course

After two intake sessions and a whole day session in which she got acquainted with the inpatient program and the therapists, she was admitted to the three-month program at the *Viersprong* Center for Psychotherapy. In the first week of her stay she made her treatment contract, aimed at changing her avoidant coping style, starting to feel her emotions instead of translating them into somatic complaints, and getting close to others. In the first weeks of treatment she was suspicious and anxious, and defended herself by hiding behind a cold facade. She tried to find a place in the group by taking care of others, who experienced her as over-active and suffocating. She discovered how anxious and inadequate she felt inside, and step by step she learnt to show some of these feelings. She enjoyed the creative and psychomotor therapy, although she put more emphasis on performing than experiencing; she didn't want to make a single mistake. She started to feel anger and sadness, for example, when friends cancelled an appointment at the weekend, or when group members finished their treatment and left. She discovered that she was inclined to resist these feelings by not taking care of herself or by translating her negative emotional feelings into negative somatic feelings.

She experienced a big gap between the world in the psychotherapy center and the weekends with her partner at home. She was afraid that her relationship would be scrutinized and criticized in the therapy.

She started having dreams about the cervix operation from eight years ago: she saw knives going into her vagina, breasts and eyes, and discussed the impact of the surgery in the group. She learned to differentiate her anxieties: she was afraid to be close, partly from fear of being rejected, and partly from fear of intimacy and being left alone.

Halfway through the course of treatment she felt stuck in resistance, anger and jealousy; unable to ventilate her feelings, had memories of both her parents and her brother who rejected her instead of supporting her, and did not feel strong enough to deal with these feelings. She started having sleeping problems and doubts about her treatment progress. She was still avoiding discussing her relationship in the therapy, and presented it as completely positive. Then she had a sexually tinted dream of a monster with tentacles on her body that stroked her and gave her sexual pleasure; finally she discussed the good and bad aspects of her relationship in a more realistic way. She decided to change the LAT relationship (LAT = living apart together) and live together with her boyfriend, and to pay more attention to feeling, dressing and acting like a woman her age.

At the end of the three-month program, she felt she had changed in a fundamental way. She had left her past, in particularly the painful memories of her youth and the cervix surgery

behind her. Her avoiding coping style had changed and she could tolerate intimacy in social relationships, and no longer constantly feared rejection or criticism. She could experience her own feelings and no longer needed to translate them into somatic complaints; she was taking better care of herself and was feeling less inferior. She was closer to her partner, and had decided to live together with him.

She was randomized into the re-integration aftercare (this program is described later in this chapter) and participated in five of the six afternoons.

Follow-up

Her symptom level decreased markedly: her Global Severity Index GSI (0-4) decreased from 1.7 at admission to 0.46 at discharge from the inpatient program; after 12 months, at the end of the aftercare, it had dropped further to 0.37, but at 24 months had risen again, to 1.1. At that time she and her partner had started psychotherapy treatment for sexual problems.

Three years after the inpatient program, Saskia described the main benefit of the inpatient psychotherapy was in improving her ability to handle intimate relationships. She was going to marry her boyfriend and now has a few intimate friends who, she feels, respect her and with whom she feels at ease. She doesn't avoid or suppress her feelings as much as she used to, but sometimes finds it hard to handle her anxiety or anger. Superficial relationships are sometimes difficult for her, for example, she feels irritated by gossiping or the racist attitudes of colleagues at her work, and she doesn't always succeed in changing the tone of the conversation. She doesn't yet have a paid job but works as a volunteer in a playgroup for young children. She also gives courses in art history on a voluntary basis. She hopes to find a paid job in the future.

Comments on the case history

The focus of the psychotherapy for this anxious, avoidant woman, with a history of emotional neglect in her childhood and cervix carcinoma as a young adult, was to change her avoidant coping style, to feel emotions instead of translating them into somatic complaints and to experience intimacy and closeness in her relationships with others. Despite considerable symptomatic improvement during the inpatient program and during the aftercare, her symptoms had increased again at the 24-month follow-up, although not to the level shown at admission. She hadn't succeeded in finding a paid job three years after the inpatient program, and had started psychotherapy again, this time together with her partner, focusing on sexual problems.

This case history shows that long-term problems often require long-term solutions. Symptomatic improvement often precedes improvement in functioning. Continuing with or starting psychotherapy treatment again could be a healthy step towards the development of a new personality dimension. This case history is typical in the sense that it shows how a maladaptive coping style, based on negative childhood experiences, can lead to underachievement in study and work, and to difficulties in intimate relationships. Although the symptoms in many patients improve immediately after the inpatient program, it takes much longer to make up the backlog in studying or working, and to improve intimate and social relationships.

The pilot study

Earlier research (SWOPG 2002, 1999 and 1997) showed a statistically significant decrease in symptoms after inpatient psychotherapy and a reduction in use of mental health services. Nevertheless, one year after the end of treatment, nearly half the patients were still receiving professional mental health care, and the majority was still not working. In order to investigate these results further we decided to do a pilot study and interviewed 14 ex-patients four years after they had participated in the short-term inpatient psychotherapy program in the *Viersprong*. We asked them the following three questions:

1. How did you cope after the inpatient program?
2. In retrospect, what do you think of the program?
3. Did you seek help again, and if so, why?

From a group of 90 patients admitted to the *Viersprong* in 1994, no follow-up data were available for 31 (34.4%) patients. From the others, 22 (24.4%) had received no further psychotherapeutic treatment, 35 (38.9%) had outpatient psychotherapy in the three years after the program, one patient had day-treatment and one patient was re-admitted. From the total group, we selected 28 patients, including especially those from whom no follow-up data were received and those who had sought help again (see Table 1). Three-quarters of the patients (21 of 28) had moved house since the program and despite considerable effort, we could not trace six patients (five belonged to the group for whom no follow-up data were received). Five people did not respond to our invitation and another three refused to participate.

There were nine women and five men in the group who were interviewed. They had a mean age of 36 years (range 29-54 yrs). We also interviewed a 'significant other' for each ex-patient: partner (4x), friend (8x), mother (1x), brother (1x).

Table 1. Potential and eventual participants in the pilot study

	<u>n</u>	Selected	Address unknown	No response	Refusal	Interviewed
No follow-up data received	31	11	5	3	1	2
No further psychotherapy	22	3	0	0	1	2
Outpatient psychotherapy	35	12	1	2	0	9
Day treatment	1	1	0	0	0	1
Inpatient treatment	1	1	0	0	1	0
Total group of patients in 1994	90	28	6	5	3	14

Results of the interviews

1. How did you cope after the inpatient program?

Most of the ex-patients still had vivid memories of both positive and negative experiences during the inpatient program and considered their time in the center as an important event in their lives. They all reported one or more periods of recurrence of symptoms after the program, often in the first year and nearly always after an important life event such as problems at work or the break-up of a relationship. They all mentioned at least one major life event in the period since the inpatient program, for example, moving house (9x), break-up of a relationship (5x), starting a new relationship (6x), a serious illness (4x), change of work (6x), birth of a child (2x for the same ex-patient), abortion (1x), death or serious illness in the immediate family (2x). Despite the stress involved, all the ex-patients were satisfied with the steps they had taken to make changes in their lives, such as leaving an unsatisfactory job or ending an unequal relationship.

Ten ex-patients experienced the return to society as too abrupt and had found it difficult to implement the – sometimes radical – changes brought about by the program. They had found the transition from the structured therapy environment in the center to normal life huge. The people around the patient had also found it difficult to get used to the changes in the ex-patient. In four interviews, the significant other regretted not having had a part in the treatment. Three ex-patients with a small network mentioned they had had difficulty in making and maintaining social contacts.

Every patient was now functioning better than before their inpatient treatment. In relation to three different areas – having a stable loving relationship, having work, and not having ongoing therapy – three ex-patients were doing well in all three areas, eight in two of the

areas, and three in one of the areas. Only three of the 14 ex-patients have children, one still wants to become a mother, but the others have no wish to have children.

2. In retrospect, what do you think of the program?

Eight of the 14 patients judged it positively, one was neutral and five were negative. The negative judgments had to do with feeling misunderstood or disrespected by other patients or staff members. One patient relapsed and followed a day treatment program for a year; he had mistakenly got the impression that by fulfilling the treatment contract, he was cured.

The therapy contract and the language of transactional analysis were seen as useful tools.

Three ex-patients missed individual elements in the program. Eight patients felt the cohesion and feeling of belonging they had experienced in their therapy group was an important corrective experience. They had been able to experiment with new behavior and experience new feelings in the group. For eight ex-patients the confrontational and directive character of the short-term treatment had helped them to overcome their resistance to change. Four others had felt a lack of respect and protection at certain moments.

3. Did you seek help again, and if so, why?

After the inpatient program, 12 of the 14 ex-patients had again received psychotherapy.

Eleven ex-patients had received outpatient treatment: less than 10 sessions (4x), between 10–20 sessions (2x), or more than 20 sessions (5x). One patient took part in day treatment for one year. Nine of the 14 ex-patients and their significant others wished the center had provided some kind of structured aftercare.

Conclusion of the pilot study: development of an aftercare program

We drew several conclusions from these interviews. The fact that the majority of the patients and their significant others experienced the return to society as difficult stimulated us to develop an aftercare program for the inpatient program. We decided to start with booster sessions: a program of two days, at three and nine months later, with the same program and therapists as during the inpatient program. In the meantime, we developed a specific aftercare program based on the results from the pilot study. This aftercare needed to contain several elements:

- support in how to implement the changes reached in the inpatient program in life outside the center;
- an opportunity for significant others to take part in the aftercare;

-support in finding a job and in dealing with problems at work, like conflict resolution, self-confidence and effectiveness in work situations.

We decided to call this a 're-integration training' and to compare both forms of aftercare in a randomized clinical trial, the results of which are described in this thesis.

Re-integration training

These ex-patients' experiences resulted in the development of aftercare aimed at re-integration. This format of aftercare is based on the view that maintaining change involves mechanisms that are different from those operating during the initial change process. The emphasis is less on psychotherapy and more on coping skills and practicing. From the comments of ex-patients, we distinguished two main areas of functioning needing attention: work and social relationships. We decided to devote half of the aftercare to each of these two areas, with a different expert therapist for each part. With respect to work, patients had to cope with how to get a job, how to keep it and how to function satisfactory in a job. For getting a job, it is important to be aware of your own interests and qualities, know something about the labor market, and to follow a course in applying for a job (for example, how much to explain about your psychiatric history?). In keeping a job in a satisfactory way, the following topics were included: personal effectiveness at work, assertiveness, self-confidence, using your own talents and possibilities, dealing with stress, and how to handle authority and criticism.

With regard to social relationships, the implementation of changes reached in the inpatient program in life outside the center and the role of significant others were crucial. The significant others were therefore invited to join in the aftercare and to share their experiences of the return home and changes in their friend/partner. We used a metaphor 'The *Viersprong* as the third party in your relationship' to help elicit the mixed feelings of friends and partners towards the therapy: there was joy about the changes seen in their partner, but there was also envy and the feeling of being excluded from the intense experiences shared with psychotherapists and the group. Other themes that were discussed were financial issues, housing problems, how to spend your free time, hobbies, and how to make more friends.

This re-integration program required trainers with special qualities instead of psychotherapists so we approached external experts to develop the program's content and to give the re-integration training. Fortunately, the same two trainers (a job re-integration expert and a family therapist) gave the program to ten different groups over 2½ years. Eventually we made the re-integration training into six 3-hour sessions, given monthly between the third and ninth

month after discharge. The trainer used a manual to guide the sessions through a fixed schedule. Sessions 1, 2 and 6 were devoted to social relationships and sessions 3, 4 and 5 to work. An experienced social worker was present at all six sessions to ensure continuity. The re-integration training was designed in close collaboration with the trainers, and was monitored on a session-to-session basis by the first author and both trainers.

Booster sessions

The booster sessions were based upon the belief that continued contact with the psychotherapist will help maintain treatment gains. This format of aftercare was the usual one given by this center, consisting of two one-day booster sessions, three and nine months after discharge. The program took place with the same therapists as during primary treatment (two sociotherapists (nurses), one art- or psychomotor therapist, and a psychiatrist or a psychotherapist). The aftercare ingredients were the same as those for the primary treatment, and were linked to the treatment contract formulated then. Each day started with selecting the topics to be discussed during the day, followed by non-verbal therapy, sociotherapy and psychotherapy sessions. Both days were concluded with an evaluation.

Aims of the study and outline of the research

The aims of this study were to develop a re-integration training for STIP patients with regard to work and relational functioning, and to compare the result of this aftercare with booster sessions, the treatment as usual, in a randomized clinical trial. We hypothesized that the re-integration training would be more effective for the patients (and more cost-effective), in terms of resuming work, absence from work, and impediments at work, than the usual 'booster' aftercare (two one-day sessions).

We studied the long-term effects of the inpatient program followed by one of two forms of aftercare on symptom level, work status, and use of mental health services in the two years after baseline (i.e. admittance to STIP). We also investigated whether the type of personality disorder or other psychological variables could predict the treatment results. Lastly, we divided the patients into successful and non-successful groups and dropouts, and compared these three groups with each other.

Summary of the research questions

The main research issues described in this thesis were:

1. Is the re-integration training more (cost)effective (in terms of work resumption, absence from work, and impediments at work) than the usual aftercare (two one-day booster sessions)? (Chapter 2)
2. What is the impact of personality disorders and type of aftercare on the outcome, as measured by symptom levels, employment status, absence from work, and number of outpatient psychotherapy sessions? (Chapter 3)
3. What is the impact of psychological variables (defensive mechanisms, five-factor personality traits, and social support) and type of aftercare on symptom levels, employment status, and number of outpatient psychotherapy sessions? (Chapter 4)
4. Can any difference be detected between successful and non-successful patients and dropouts at baseline? (Chapter 5)

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Chapter 2. A randomized clinical trial on the (cost)-effectiveness of a re-integration training after short-term inpatient psychotherapy.

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Submitted.

Abstract

Background.

Although several studies showed symptomatic improvements in patients with personality disorders after short-term inpatient psychotherapy, difficulties in re-integration (work resumption and general functioning) remained in these patients.

Aims

The aim of this study is to examine the effectiveness of specifically designed re-integration training.

Method

Patients were randomized to either re-integration training aimed at functioning at work and in general, or to booster sessions. Outcome measures were symptom level, employment status, absence from and impediments at work.

Results

Compliance in the booster session group was significantly better than in the re-integration training. The percentage of persons with a paid job increased during the booster sessions, and not during the re-integration training. There were no differences in the other outcome measures.

Conclusions

The re-integration training was not more (cost)-effective than booster sessions. Our hypothesis is that continuity of care explains the favorable result of the booster sessions.

Declaration of interest

None.

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Psychotherapy for patients with personality disorders is effective (Leichsenring & Leibing, 2003; Perry, Banon & Ianni 1999), although long-term treatments seem necessary for structural changes to occur, e.g. with respect to defense style (Piper, Rosie, Azim & Joyce, 1993) and social functioning (Perry, Banon & Ianni 1999, Skodol, Pagano, Bender, Shea, Gunderson, Yen, Stout, Morey, Sanislow, Grilo, Zanarini & McGlashan, 2005). One year after the end of an inpatient program for personality disorders, nearly half of the patients were still receiving professional mental health care, and the majority was still not working (SWOPG, 2002).

In a pilot study among ex-patients of a three-month inpatient psychotherapeutic program for patients with personality disorders (Thunnissen, Duivenvoorden & Trijsburg, 2001) we found that patients showed symptomatic improvement, but often still received psychotherapeutic treatment and had difficulties finding work or handling stressful situations at their work. They also experienced the transition from hospital to society as huge. This stimulated us to develop a re-integration training aiming at improving functioning at work and in general. The hypothesis in this study was that the re-integration training would be more effective, in terms of work resumption, absence from work and impediments at work than the usual aftercare, consisting of two one-day booster sessions.

Methods

Patients

On average, 50% of the patients applying for treatment in the three-month inpatient psychotherapy program of the Center of Psychotherapy 'De Viersprong' in Halsteren, the Netherlands, are admitted after an intensive diagnostic work-up. Selection criteria are longstanding personality problems and unsuccessful previous psychotherapeutic treatment(s). Exclusion criteria are: substance use disorder, history of psychosis, and other severe Axis I disorders that would potentially interfere with the treatment program. All patients participating in the treatment between May 1999 and December 2001 ($n = 160$) were asked for written informed consent to participate in the aftercare study. As seven patients refused informed consent and 25 of the patients dropped out of treatment, 128 patients remained for this study.

Primary treatment

All patients participated in a three-month inpatient psychotherapy program consisting of psychodynamic group psychotherapy based on the methods of transactional analysis, non-

verbal therapies and sociotherapy in a reconstructive psychotherapeutic milieu (cf. Thunnissen *et al*, 2001). The program focuses on a selected core conflict written down in an individual treatment contract. The treatment groups, consisting of eight patients, are half-open, meaning that every six weeks four out of eight patients end their treatment. At the same point in time, the four other patients take absence from the treatment during one week, in order to evaluate and to reconsider their treatment goals. After this week, four new patients are admitted, so the group consists of eight patients again.

Re-integration training

The re-integration training consisted of six manual-guided training sessions of three hours each, delivered on a monthly basis between the third and the ninth month after discharge. The training aimed at problem solving and was delivered by trainers who were new to the patients. An experienced family therapist delivered sessions one, two and six. The main goal of these sessions was the integration of changes, achieved in the inpatient treatment, in social relations outside the hospital. The topics addressed were how to handle the situation of being back home, changes in relationships after therapy, financial issues and housing problems. Patients were invited to bring in a 'significant other' in two of the three sessions. An experienced job re-integration expert delivered sessions three to five. The topics addressed were career development based on the individual profile of interest, skills and qualities of each patient, how to find and keep a job, personal effectiveness at work, assertiveness, self-confidence, and how to handle authority and criticism. An experienced social worker was present at all sessions to establish continuity during the sessions. The re-integration training was designed in close collaboration with the trainers, and was monitored on a session-to-session basis by the first author and the trainers.

Booster sessions

The usual aftercare consisted of two one-day booster sessions, three and nine months after discharge, with the same therapists as during primary treatment (two sociotherapists, one art- or psychomotor therapist, and a psychiatrist or a psychotherapist). Treatment ingredients were the same as those during the primary treatment, and were linked to the treatment contract formulated during the primary treatment. Each day started with selecting topics to be discussed during the day, followed by a non-verbal therapy, a sociotherapy and a psychotherapy session. Both days were concluded with an evaluation.

Outcome assessment

Employment status, absence from work and impediments during paid work were measured with the Health and Labour Questionnaire (Hakkaart-van Roijen, Essink-Bot, Koopmanschap, Bonsel, & Rutten, 1996, Hakkaart-van Roijen, van Straten, & Donker, 2002). The HLQ is a validated instrument for collecting data on productivity losses. In this study we applied three modules of the HLQ, one on absence from work, and two on impediments at work: reduced efficiency at work and difficulties with job performance respectively. Absence from work during the two weeks preceding the interview was measured as half-days; any absence of a half day or more was taken as “absent”. Work impediments (e.g. having problems in concentrating or in making decisions, working more slowly, having to isolate oneself, postponing work, having others do one’s own work) were rated as follows, 0 = no impediments, 1 = some impediments, 2 = serious impediments.

A cost-effectiveness analysis was planned in case the treatment conditions would differ in terms of production losses and impediments at work.

Symptoms were measured with the Symptom Check List (SCL-90, Derogatis, 1977, translation by Arrindell & Ettema, 1981). The SCL-90 average score (range 90 to 450) was transformed into a Global Severity Index (GSI) score (range 0 to 4). The reliability of the SCL-90 is good (Cronbach’s $\alpha = 0.97$, test-retest reliability ranging from 0.78 to 0.91, depending on the sample).

Baseline characteristics of the patients were measured at intake with a self-report (biographical data, earlier psychotherapeutic treatment, educational level). Personality disorders were measured with the Structured Interview for DSM-IV Personality disorders (SIDP-IV; Pfohl, Blum & Zimmerman, 1995). Axis-I diagnoses were based on clinical assessments.

Procedure

In the first week of the primary treatment, patients were asked written informed consent to participate in the study. After the primary treatment, patients were allocated to either re-integration training or booster sessions. As the groups in the primary treatment were half-open, patients were randomised in blocks of four (randomised block design). Each group consisted of eight patients, i.e., two blocks of four patients.

Measurements took place at the start (baseline) of the primary treatment, at the start (6 months after the start of primary treatment) and at the end of the aftercare (12 months), and at follow-up (24 months).

Statistical analysis

The study was powered to detect ‘moderate differences’ of 0.5 effect size (Cohen, 1988) on the outcome ‘having a paid job’ with β at 0.80 and $\alpha = 0.05$, two-tailed. The statistical analysis was based on the intention-to-treat principle. Logistic regression analysis was applied with binary outcome variables i.e. having paid work (0=no, 1=yes), absence from work (0=not absent, 1=absent) and impediments at work (0=no impediments; 1= impediments). In logistic regression analyses, the odds ratio (OR) was used as a measure of performance; in case of linear regression analysis the unstandardised regression coefficient (β) was used as the measure of importance. ANCOVA was used to test the statistical probability of a difference between the two conditions in terms of severity of symptoms.

Comparisons between re-integration training and booster sessions were adjusted by multivariate modeling of the following variables: sex, type of personality disorder, having paid work at baseline, severity of symptoms in the period before the start of the aftercare, psychotherapeutic help in the two years before baseline and participation in the aftercare. T-tests for two independent samples were applied with continuous data in order to detect statistical differences. All analyses were performed following the CONSORT statement (Moher, Schulz & Altman, 2001).

Results

Participant flow diagram

Compliance

On average, 64.6% of the sessions in the re-integration condition and 83.6% of the sessions in the booster condition were attended by the patients ($t=3.20$, $df=126$, $p=0.002$, two-tailed).

Baseline measurements

Patient characteristics are presented in Table 1. Nearly two-third of the sample consisted of women. More than 90% of the patients were diagnosed with at least one Axis I disorder and at least one Axis II disorder, mainly Cluster B, C and NOS. Most patients had undergone psychotherapeutic treatments during the two years preceding admission to the inpatient treatment, mostly outpatient treatments. The majority of the patients were employed and 50% were living alone.

The two samples differed in some respects: sex (more men in the booster sessions) and Axis II disorders (more patients with a Cluster C disorder in the re-integration training; more patients with a personality disorder NOS in the booster sessions). Comparisons between re-integration training and booster sessions were adjusted for these differences.

Comparison between the 25 dropouts and the 128 patients of the study group showed that the percentage of males was higher in dropouts (66.7%) than in study patients (34.4%; $\chi^2 = 9.86$; $p < .01$). Dropouts were significantly older ($40.3 \text{ years} \pm 9.6$) than study patients ($35.6 \text{ years} \pm 8.1$; $t = 2.6$; $df = 151$; $p < .01$).

Table 1. Characteristics of the patient sample (n = 128).

	Re-integration training		Booster sessions	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Sex				
Female	47	73.4	37	57.8
Male	17	26.6	27	42.2
Axis-I disorder ¹				
Any Axis-I disorder	60	93.8	56	87.5
Dysthymic disorder	28	43.7	20	31.3
Generalised anxiety disorder / social phobia	17	26.6	10	15.6
Depressive disorder, cyclothymic disorder	10	15.6	15	23.4
Somatoform disorder / hypochondriasis	10	15.6	1	1.6
Identity problem	2	3.1	8	12.5
Adjustment disorder	3	4.7	6	9.4
Substance abuse in remission	1	1.6	6	9.4
Number of Axis-I disorders				
0	3	4.7	7	10.9
1	40	62.5	34	53.1
2	14	21.9	16	25.0
3	6	9.4	6	9.4
Unknown	1	1.6	1	1.6
Axis-II disorder ²				
Cluster A	9	14.1	7	10.9
Cluster B	9	10.9	12	18.8
Cluster C	40	62.5	26	40.6
NOS ³	5	12.5	17	26.6
No Axis-II disorder	1	1.6	2	3.1
Earlier treatment (in the past 2 years)				

¹ Infrequent diagnoses (less than 7 patients, e.g. sexual disorders, eating disorders, PTSD) were omitted. Due to overlap the total percentage is > 100%.

² Measured with SIDP. Because many patients received more than one personality disorder classification, we selected the most severe personality disorder allocated to a patient for further analysis. In the order of severity, cluster A took precedence over cluster B, followed by cluster C, and cluster NOS.

³ A personality disorder NOS was diagnosed if the patient did not meet the criteria of one specific disorder but had a positive score on at least 10 criteria of several different personality disorders, including the self-defeating, depressive and negativistic personality disorders.

GP only	6	9.4	3	4.7
Outpatient psychotherapy				
n sessions ≤ 15	20	31.3	17	26.6
n sessions $16 \leq n \leq 30$	14	21.9	18	28.1
n sessions > 30	16	25.0	17	26.6
Day clinic	1	1.6	4	6.3
Inpatient treatment	7	10.9	5	7.8
<hr/>				
Educational level				
Lower level	4	6.3	4	6.3
Middle level	25	39.0	29	45.3
Higher level	35	54.7	31	48.4
<hr/>				
Unemployed	16	25.0	21	31.8
<hr/>				
Living alone/together				
Alone	30	46.9	34	53.1
Together with other(s)	34	53.1	30	46.9
Having children	11	17.2	14	21.9
<hr/>				

Symptomatic change

Table 2 shows that the level of symptoms decreased substantially between baseline and follow-up (Cohen's $d=2.00$ in the re-integration training and 2.01 in the booster sessions). There was no statistically significant difference between the two conditions of aftercare.

Table 2. Symptoms level (GSI) across time distinguished by condition of aftercare¹

SCL ²	Re-integration training			Booster sessions					T-test	p
	<u>n</u>	Mean (sd)	95% CI	<u>n</u>	Mean (sd)	95% CI	Mean diff.	95% CI		
Start primary treatment	64	1.28 (.57)	1.13 to 1.41	64	1.22 (.52)	1.08 to 1.37	.06	-.13 to .25	.60	.56
Start aftercare 6 months	61	.56 (.41)	.42 to .69	61	.60 (.60)	.47 to .74	-.05	-.23 to .14	-.49	.63
End aftercare 12 months	59	.49 (.39)	.39 to .60	56	.40 (.34)	.29 to .50	.08	-.05 to .22	1.23	.23
Follow-up 24 months	55	.44 (.40)	.31 to .56	53	.40 (.43)	.28 to .53	.03	-.12 to .19	.43	.67

Employment status

Table 3a shows that, between start of the primary treatment and follow-up, the percentage of patients with a paid job did not change in the re-integration training condition (75.9% and 75.9% respectively), and increased in the booster sessions condition from 64.2% to 86.8%. The difference between the two conditions is significant only at the end of the aftercare (see Table 3b).

¹ Adjusted for sex, type of personality disorder, having paid work at baseline, severity of symptoms at earlier measurement moments, psychotherapeutic help in the two years before baseline and participation in the aftercare.

² Scored on a scale from 0 to 4; 4=extreme symptom distress.

Table 3a. Effect of aftercare on having paid work

Re-integration training (n=54; missing 10)

Booster sessions (n=53, missing 11)

follow-up (1)				follow-up (1)			
Start Primary treatment	no	no	yes	24.1%	no	no	yes
		13.0%	11.1%			9.4%	26.4%
	yes	11.1%	64.8%	75.9%	yes	3.8%	60.4%
		24.1%	75.9%	100.0%			13.2%
							86.8%
							100.0%

1) Follow-up: 24 months after start Primary treatment

2) no= having no paid work; yes= having paid work

OR (unadjusted) = 7.00; 95% C I= 1.09 to 45.16; $p = .04$

OR (adjusted) = 18.58; 95% CI = .86 to 400.13; $p = .06$

Table 3b. Effect of aftercare on having paid work *.

	Re-integration training			Booster sessions		
		n with paid work			n with paid work	
	n	n	%	n	n	%
Start primary treatment	64	48	75.0	64	43	67.2
Start aftercare 6 months	61	42	68.9	61	44	72.1
End aftercare 12 months	59	41	70.7	56	50	87.7
Follow-up 24 months	55	41	75.9	53	46	86.8

*slight differences between the numbers in Tables 3a and 3b are due to the fact that in Table 3a only the patients whose data were complete at follow-up are included.

Absence from work due to illness

Absence from work decreased significantly between the start of the primary treatment and follow-up (see Tables 4a and 4b): from 46.3% (re-integration training) and 51.9% (booster sessions) to 7.4 and 11.5% respectively (McNemar test, $p < .000$, two-tailed). There was no significant difference between the two conditions at any time of measurement (see Table 4b).

Table 4. Effect of aftercare on absence from paid work due to illness

a. Change from start inpatient program to follow-up (1)

Re-integration training (n=54, missing 10)

		follow-up		
		abs. no	abs. yes	
start primary treatment	no	50.0%	3.7%	53.7%
	yes	42.6%	3.7%	46.3%
		92.6%	7.4%	100.0%

Booster sessions (n=52, missing 12)

		follow-up		
		abs. no	abs. yes	
start primary treatment	no	42.3%	5.8%	48.1%
	yes	46.2%	5.8%	51.9%
		88.5%	11.5%	100.0%

1) Follow-up 24 months after start inpatient program

OR (unadjusted) = 1.57; 95% CI .24 to 10.3; p= .64

OR (adjusted) = .59; 95% CI = .06 to 5.63; p= .65

b. Change from start aftercare to follow-up (1)

Re-integration training (n=54, missing 10)

		follow-up		
		abs. no	abs. yes	
start aftercare	no	72.2%	1.9%	74.1%
	yes	20.4%	5.6%	25.9%
		92.6%	7.4%	100.0%

Booster sessions (n=52, missing 12)

		follow-up		
		abs. no	abs. yes	
start aftercare	no	71.2%	7.7%	78.8%
	yes	17.3%	3.8%	21.2%
		88.5%	11.5%	100.0%

1) start aftercare: 12 months after start primary treatment;

follow-up 24 months after start primary treatment

OR (unadjusted) = 4.89; 95% CI = .46 to 51.86; p=.19

OR (adjusted) = 2.50; 95% CI = .14 to 46.29; p = .54

Table 4c. Effect of aftercare on absence from paid work*

	Re-integration training		Booster sessions		p
	<u>n</u>	absence from work <u>n</u> %	<u>n</u>	absence from work <u>n</u> %	
Start primary treatment	64	31 48.4	64	33 51.6	.86
Start aftercare 6 months	61	15 24.6	60	13 21.7	.83
End aftercare 12 months	57	11 19.3	57	10 17.5	1.00
Follow-up 24 months	54	4 7.4	52	6 11.5	.52

* slight differences between the numbers in Tables 4a, 4b and 4c are due to the fact that in Table 4a and b only the patients whose data were complete at follow-up, are included.

Impediments at work.

Tables 5a and 5b show that at the start of the primary treatment 38.9% (re-integration training) and 34.4% (booster sessions) of the patients with a paid job, showed impediments at work. At the start of the aftercare, the number of people suffering impediments at work increased in both conditions to 50.0% (re-integration training) and 44.4% (booster sessions), and decreased at follow-up (36.1% and 27.8% respectively). There was no significant difference between the two conditions at any time of measurement (see Table 5c).

Table 5. Effect of aftercare on impediments at paid work

a. Change from start primary treatment to follow-up (1)

Re-integration training (n=54, missing 10)				Booster sessions (n=52, missing 12)			
follow-up				follow-up			
start primary treatment	no	imp. no	imp. yes	start primary treatment	no	imp. no	imp. yes
		36.1%	25.0%			50.0%	15.6%
	yes	27.8%	11.1%		yes	21.9%	12.5%
		61.1%				65.6%	
		38.9%				34.4%	
		100.0%				100.0%	
		63.9%				71.9%	
		36.1%				28.1%	

1) follow-up: 24 months after start primary treatment
 OR (unadjusted) = 1.22; 95% CI = .35 to 4.24; $p = .$
 OR (adjusted) = 1.01; 95% CI = .26 to 3.97; $p = .99$

b. Change from start aftercare to follow-up (1)

Re-integration training (n=54, missing 10)				Booster sessions (n=52, missing 12)			
follow-up				follow-up			
start aftercare	no	imp. no	imp. yes	start aftercare	no	imp. no	imp. yes
		38.9%	11.1%			36.1%	19.4%
	yes	25.0%	25.0%		yes	36.1%	8.3%
		50.0%				55.6%	
		50.0%				44.4%	
		100.0%				100.0%	
		63.9%				72.2%	
		36.1%				27.8%	

1) start aftercare: 6 months after start primary treatment; follow-up 24 months.
 OR (unadjusted) = 1.47; 95% CI = .41 to 5.30; $p = .56$
 OR (adjusted) = 1.00; 95% CI = .31 to 12.68; $p = .47$

Table 5c. Effect of aftercare on impediments at paid work*

	Re-integration training		Booster sessions		
	<u>n</u> ¹	impediments at work <u>n</u> %	<u>n</u> ¹	impediments at work <u>n</u> %	<u>p</u>
Start primary treatment	48	14 29.2	43	13 30.2	1.00
Start aftercare 6 months	43	20 46.5	44	21 47.7	1.00
End aftercare 12 months	39	19 48.7	50	15 30.0	.31
Follow-up 24 months	41	16 39.0	45	14 31.1	.67

* slight differences between the numbers in Tables 5a, 5b and 5c are due to the fact that in Tables 5a and 5b only the patients whose data were complete and who had a paid job on both measurement moments, are included.

¹ Only those patients with a paid job

Cost-effectiveness.

The volumes and costs of both formats of aftercare are shown in Tables 6a and 6b. Apart from the extra costs for developing the re-integration training program and a feasibility study in a group of ex-patients (not in Table 6), the costs of the aftercare conditions differed substantially, the re-integration training being 1.6 times more expensive than the booster sessions. As the difference in outcome also favored the booster sessions, a cost-effectiveness analysis was not applied for reasons of redundancy: the booster sessions dominate the re-integration training program, as they show better effect and lower costs.

Table 6. Volume and costs of the two formats of aftercare.

Table 6a. Volume and costs of the re-integration training

	No of sessions	Duration	Total no of hours	Costs (€/hour)	Total costs
System therapist	3	3 hours	9	€ 84	€ 756
Work counselor	3	3 hours	9	€ 42	€ 378
Social worker	6	3 hours	18	€ 42	€ 756
Total					€ 1,890

Table 6b. Volume and costs of the booster sessions

	No of sessions	Duration	Total no of hours	Costs (€/hour)	Total costs
Psychiatrist or psychotherapist	2	2.75 hours	5.5	€ 84,-	€ 462
Two nurses	2	6 hours	12	€ 42	€ 504
Art therapist	2	2.75 hours	5.5	€ 42	€ 231
Total					€ 1,197

Discussion

In summary, contrary to our expectations, the re-integration training was not more effective than the booster sessions. The percentage of people with paid work increased in the booster sessions and stayed the same in the re-integration training. This difference was significant at the end of the aftercare, but no longer at follow-up. The absence from and impediments at work and the rate of symptomatic improvement were similar in both conditions. Moreover, the booster sessions were less costly than the re-integration training.

More patients than expected from earlier research (SWOPG, 2002) had a paid job at baseline. This might be due to the questionnaire used in our research which differentiated between having a paid job, being absent by illness and not having paid work. Another explanation could be changes in society (more jobs available and a more work-oriented ideology).

Based on the above findings, the hypothesis of a better effectiveness of the re-integration training has to be rejected. Below we discuss some explanations for this unexpected finding,

based on two major differences between the two conditions, i.e. *the structure of aftercare* (six sessions with a manual and a cognitive approach in the re-integration training, versus two days with the same content as the inpatient program in the booster sessions); and *the person of the therapist* (new to the patients in the re-integration training versus familiar in the booster sessions).

Structure of aftercare

The format of the booster sessions was based on earlier studies of aftercare (Emmelkamp, 2004; Hollon & Beck, 2004; Kopelowicz, Wallace. & Zarate, 1998; Whisman, 1990). Most of the 30 clinical trials discussed by Whisman concerned a cognitive-behavioral primary treatment followed by cognitive-behavioral boosters. In the same vein, the booster sessions in this study used the same method as applied during the primary treatment: group psychotherapy, non-verbal therapy and sociotherapy based on transactional analysis.

However, as the therapists were not blind to the research hypothesis, this may have influenced the treatment given. From discussions with the therapists conducting booster sessions it indeed appeared that they were inclined to pay attention to the work situation of patients. For instance, some therapists actively questioned the lack of effort from the part of patients in finding a job. The implication of this finding may be that the booster sessions did not differ as much from the re-integration training as suggested by the respective treatment manuals. However, we did not perform an adherence study to check if treatments were delivered as planned.

The re-integration training was based on the view that maintaining change may involve mechanisms that are different from those operating during the initial change process, e.g. reinforcing the subjects' self-efficacy, consolidation of coping skills and extension of the therapy regimen into the subjects' social environment (Lambert & Bergin, 1994, Whisman, 1990). The re-integration training aimed at improving these abilities. However, the shift in the treatment method applied, may not have been in accordance with the needs and expectations of the participants. Some findings seem to underline this view.

First of all, patients in the re-integration training had a lower participation rate (64.6%) compared to those in the booster sessions (83.6%), although the attendance was still high compared to the attendance in other aftercare programs (Lash, 1998). Also, the participation in the re-integration training decreased from 78.1% during the first session to 56.3% in the fifth and 64.1% in the sixth session.

Secondly, the fact that 75.9% of the patients in the re-integration training had a paid job at the start of the aftercare may have made the training less relevant. Telephone interviews with 19 out of the 23 patients in the re-integration training condition, participating in three or less sessions support this view. Fourteen of the 19 patients already worked at the start of the aftercare and 7 explained their absence from aftercare because of job demands. Thirdly, the re-integration training consisted of six three-hour sessions, whereas the booster sessions consisted of two one-day sessions. It seems possible that patients in the re-integration condition could skip one or two sessions more easily than patients in the booster sessions could.

Lastly, the telephone interviews revealed that 11 out of 19 patients did not attend sessions because of the change in treatment method.

Therapists

Lash (1998) found that participation in aftercare was enhanced if therapists were introduced to the patients during the inpatient program. De Leon (1991) concluded that discontinuity in the providers of services leads to ineffective utilisation of aftercare. From a study of overweight patients, Hall *et al* (1975, in Whisman 1990) concluded that continuity of the presence of the therapist during aftercare might contribute to treatment results. Eysenck (1963, in Whisman, 1990) emphasized that extending the contact with the therapist once or twice a year throughout the life history of the individual, could help consolidate treatment gains. In general, the influence of patient-therapist variables in psychotherapy outcome is well-established (Crits-Christoph, Baranachie, Kurcias, Beck, Carroll, Perry, Luborsky, McLellan, Woody, Thompson, Gallagher, Zitrin, 1991; Lambert & Bergin, 1994), and this influence may also be considerable in aftercare. This view is supported by the finding that ten of the 19 patients interviewed by telephone mentioned unfamiliarity with the trainers as a reason for non-participation.

Generalisation of the results

As patients often apply for inpatient treatment after other, less intensive treatments have failed, they may be viewed as highly motivated to undergo this specialized form of treatment. Older male patients had a higher risk of dropping out during the primary treatment. Therefore, the findings from this study seem to apply to a sub-sample of patients suffering from personality disorders who are in need of inpatient psychotherapy.

Clinical implications

The overall conclusion of this study is that non-intensive aftercare in the same format as the main treatment, with the patients' earlier therapists, is at least as (cost)-effective as aftercare with expert, but new therapists. As continuity of care with the same therapist as during the primary treatment seems an important precondition for successful aftercare, the introduction of work issues into the booster sessions in a systematic way could prove to be even more effective. Aftercare aiming at specific needs of patients, e.g. work resumption training for those without a job, might be more effective than aftercare for all patients, irrespective of their specific needs. However, as both conditions of aftercare were not compared with untreated controls, it remains unclear if any type of aftercare would perform better than no aftercare. This type of treatment may be relevant for a population of patients with longstanding personality disorders, already having received extensive treatments.

Limitations

There were several limitations in our study. First, a comparison-group without aftercare was absent. Therefore we were unable to show the superiority of aftercare over no-aftercare controls. Second, compliance in the re-integration condition was significantly lower than in the booster condition. As there was no evidence of problems or failures in service delivery, and compliance in the re-integration condition was higher than usual in aftercare, this finding may be explained by the format of six half-day sessions, compared to booster sessions with a format of two full days. The effects found may therefore be an effect of patient preferences instead of a treatment effect. Lastly, this study was performed with a selected group of patients with personality disorders who were referred to inpatient psychotherapy after extensive earlier treatments. Therefore, the possibility remains that findings cannot be generalized to the wider population of personality disordered patients.

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Chapter 3. The influence of personality disorders on the effectiveness of inpatient psychotherapy followed by aftercare.

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Abstract.

Background

This study examined whether personality disorders predict the effectiveness of a three-month inpatient psychotherapeutic program followed by one of two different formats of non-intensive aftercare.

Method

For 128 patients first the effect of cluster personality disorder on symptomatic change during the inpatient program was measured. Next the effect of personality disorder on the effectiveness of the two different formats of aftercare was measured regarding symptom level, employment status and number of outpatient psychotherapy sessions at 12 and 24 months after baseline.

Results

Patients in this study in general showed a different course in improvement depending on the cluster PD. Symptomatic improvement was slower in cluster A patients; cluster B patients showed a more fluctuating pattern. At follow-up though, patients of all clusters showed the same improvement. At follow-up cluster A and cluster B patients worked more hours than cluster C patients and patients with a PD NOS. Patients in the booster sessions worked more hours at the end of the aftercare compared to patients in the re-integration training. Type of aftercare had no differentiating effects for patients with certain personality disorders.

Conclusion

The results of this study suggest that patients with a cluster A or B personality disorder have no less results compared to cluster C or NOS patients. This is in line with the present discussion to revise the categorical DSM IV approach into a dimensional approach.

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Introduction

Growing empirical evidence indicates that psychotherapy is effective in treating personality disorders (Leichsenring, & Leibing, 2003; Perry, Bannion, & Ianni, 1999). Most studies concerned 12 to 18 months of outpatient psychotherapy (Høglend, 1993; Stevenson, & Meares, 1992; Winston, Laikin, Pollack, Wallner Samstag, McCullough, & Muran, 1994) or 18 months day treatment (Bateman, & Fonagy, 1999, 2000, 2001). However, few studies examined the effectiveness of short-term day-treatment programs for patients with personality disorders (Piper, Rosie, Azim, & Joyce, 1993; Piper, Joyce, Azim, & Rosie, 1994; Friis, 1995).

The studies are inconclusive with regard to prediction by type of personality disorder. Friis (1995) found that after an average length of 5.5 months of day-treatment, cluster C patients improved significantly more than cluster A and B patients. Wilberg, Friis, Karterud, Mehlum, Urnes, & Vaglum, (1998a) found that after a day-treatment program patients without personality disorders or with cluster C personality disorders improved faster and to a higher level of global functioning (GAF) than patients with a cluster A or B personality disorder. In another study (Wilberg, Karterud, Urnes, Pedersen, & Friis, 1998b) the effect size for symptom level (GSI) was higher, and for Global Assessment of Functioning (GAF) was lower in cluster A patients compared to cluster B and cluster C patients. Ogrodniczuk, Piper, Joyce, & McCallum (2001) found that in short-term individual psychotherapy the number of personality disorders was significantly related to outcome at post-therapy and at the 12 month follow-up.

On the other hand, Gude and Vaglum (2001) found no difference in outcome between patients with only cluster C-personality disorder compared to patients with cluster A or B personality disorders or cluster C combined with cluster A or B.

The aim of the present study was to examine the impact of personality disorders on outcome. We had two different questions:

1. What is the effect of personality disorder on symptomatic improvement of patients during three months inpatient psychotherapy (short-term effect);
2. What is the effect of personality disorder on the effectiveness of each type of aftercare; here we used symptom level, employment status and number of sessions psychotherapy as outcome measurements (long-term effect).

Methods

See for information on patients, primary treatment and aftercare Chapter 2.

Baseline assessment

Personality disorders were measured during the first six weeks of the primary treatment with the Structured Interview for the Diagnosis of the Personality (SIDP-IV; Pfohl, Blum, & Zimmerman, 1995; translation by De Jong, Derks, van Oel, & Rinne, 1996). The SIDP-IV is a 1.5 to 2-hour semi-structured interview covering all personality disorders mentioned in the DSM-IV, including diagnoses for self-defeating, depressive and negativistic personality disorders. The interviewers were a psychiatrist, and several psychiatric residents and psychologists, all trained in rating the SIDP interview. Of the interviews, 43 (34%) were drawn at random for inter-judge reliability estimation by an independent judge. The inter-judge reliability, based on the scores of the 110 items of the SIDP of any two raters, was good ($0.82 \leq \kappa \leq 1.00$). In each patient the criteria of each Axis II classification, including the three proposed disorders (self-defeating, depressive and negativistic personality disorder), were recorded on a scale of 0 (absent) to 3 (strongly present, leading to pronounced suffering and/or limitations).

Axis I diagnoses were based on clinical assessments.

Outcome assessment

Symptom level was measured with the Symptom Check List (SCL-90, Derogatis, 1977, translation by Arrindell, & Ettema, 1981) at the three measure moments. The SCL-90 average score (range 90-450) was transformed into a Global Severity Index (GSI) score (range 0 to 4). The reliability of the SCL-90 is good (Cronbach's $\alpha = 0.97$, test-retest reliability estimates for varying time-intervals ranged from 0.78 to 0.91; Arrindell & Ettema, 1981).

The employment status was measured with the Health and Labour Questionnaire (Hakkaart-van Roijen, van Straten & Donker, 2002; Hakkaart-van Roijen, Essink-Bot, Koopmanschap, Bonsel & Rutten, 1996). Type, duration, and intensity of psychotherapeutic treatments (other than the aftercare) were measured with a self-report questionnaire in which type (inpatient treatment, day-treatment or different outpatient psychotherapies) and extent (number of weeks or months in inpatient or day-treatment, and number of sessions in outpatient psychotherapy) were scored (Nugter, van Bragt & Kumeling, 1998). At the end of the aftercare the number of the last 6 months was scored (since the start of the aftercare); at follow-up the number of the last 12 months was scored (since the end of the aftercare).

Procedure

Design

The design was a Randomised Clinical Trial in which the two methods of aftercare were compared in effectiveness. In the first week of the primary treatment, patients were asked for their written informed consent to participate in the study. After the primary treatment, patients were allocated to either re-integration training or booster sessions. As the groups in the primary treatment were half-open, patients were randomised in blocks of four. Each group comprised eight patients (i.e. two blocks of four patients).

Measurement moments were at baseline, at the end of the inpatient treatment, at the start (6 months) and the end of the aftercare (12 months) and at follow-up (24 months). At baseline predictor variables and baseline values of the outcome variables were measured. Symptom level was measured at the end of the inpatient program, at the start and the end of the aftercare and at follow-up. The number of hours worked was measured at the start and the end of the aftercare and at follow-up. The number of sessions of psychotherapy was measured at the end of the aftercare and at follow-up.

Statistical analysis

First of all, percentages and means were presented as measures of central tendency for categorical and continuous data, respectively. If relevant, 95% confidence intervals were presented.

The method of multivariate analysis of covariance for repeated measurements was applied to test whether the changes of the outcome variables across time (3, 6, 12 and 24 months) differed for the clusters of the personality disorders.

Start aftercare (6 months) as pre-measurement of the corresponding outcome variable was entered into the model as co-variable.

Results

For the participant flow diagram: see Chapter 2, Figure 1.

For patient characteristics see Chapter 2, Table 1.

Effect of personality disorder on symptom level at start and end of the inpatient program
Table 1, the first 7 columns, shows the effect of personality disorder on symptomatic improvement of patients during three months inpatient psychotherapy.

Patients with a cluster A disorder started with a high symptom level at admission, which declined slowly and was the highest of all clusters PD at the end of the inpatient program. Patients with a cluster B PD made the largest progress of all patients during the inpatient program. Patients with a cluster C PD or with a PD NOS showed an intermediate course. The difference between symptoms of cluster A and B patients at the end of the inpatient program was significant ($p=.00$). There were no differences between the other clusters PD (see also Figure 1).

Table 1. Symptom level across time for the different clusters.

Symptoms	Baseline			End inpatient program			Start aftercare			End aftercare			Follow-up		
				3 months			6 months			12 months			24 months		
	<u>n</u>	Mean	95% CI	<u>n</u>	Mean	95% CI	<u>n</u>	Mean	95% CI	<u>n</u>	Mean	95% CI	<u>n</u>	Mean	95% CI
Clus A	16	1.26	.95 to 1.58	16	.77	.49 to 1.06	16	.53	.23 to .83	14	.46	.22 to .70	11	.32	.11 to .53
Clus B	21	1.11	.93 to 1.28	21	.32	.20 to .43	18	.52	.32 to .72	17	.39	.22 to .55	17	.39	.21 to .56
Clus C	66	1.33	1.18 to 1.47	66	.49	.38 to .61	64	.65	.52 to .79	59	.45	.36 to .54	58	.45	.34 to .56
NOS	22	1.11	.91 to 1.32	22	.45	.27 to .63	22	.49	.31 to .66	21	.44	.30 to .58	20	.45	.23 to .67
Total	125	1.24	1.15 to 1.34	125	.49	.41 to .57	120	.59	.49 to .68	111	.44	.37 to .50	106	.43	.35 to .51

Figure 1. Personality disorder clusters and symptom level across time

Effect of personality disorder on the effectiveness of inpatient psychotherapy followed by aftercare

In Figure 1 and in Table 1, 2, and 3, the course of symptom level, employment status and number of sessions psychotherapy for each cluster PD over time are shown.

As to symptoms, patients with a cluster A disorder showed a gradual decline in symptoms to end at the lowest level of all clusters PD at follow-up. Patients with a cluster B PD relapsed between the end of the inpatient program and the start of the aftercare and gradually declined in symptoms till follow-up. Patients with a cluster C PD showed the largest relapse of all clusters PD between end of the inpatient program and start of the aftercare; they gradually declined in symptoms till follow-up but ended with a higher symptom level compared to patients with cluster A and B PD. Patients with a PD NOS showed less relapse compared to cluster B and C patients and ended at the same level as cluster C patients at follow-up.

As to employment status, patients with a cluster B PD worked the lowest number of hours at admission and ended with the highest number of hours at follow-up. Patients with a cluster A PD showed a decline in number of hours worked at the start of the aftercare but the number of hours worked increased again at follow-up. Patients with a cluster C PD also showed a decline in number of hours worked at the start of the aftercare but they increased slower than cluster A and cluster B patients and ended with fewer hours worked at follow-up. Patients with a PD NOS showed the same course as cluster A patients till the end of the aftercare and then relapsed to the lowest number of hours worked. On average patients worked 24 hours at follow-up.

As to number of sessions psychotherapy: patients with cluster A had the largest number of sessions psychotherapy in the two years before admission. For all clusters PD the number of sessions psychotherapy declined to less than 1 session (during the 9 months between the end of the inpatient program and the end of the aftercare, and during the 12 months between the end of the aftercare and follow-up).

Table 3. Number of hours worked across time for the different clusters.

Number of hours work	Baseline			Start aftercare 6 months			End aftercare 12 months			Follow-up 24 months		
	<u>n</u>	Mean	95% CI	<u>n</u>	Mean	95% CI	<u>n</u>	Mean	95% CI	<u>n</u>	Mean	95%
Clus A	16	22.7	13.1 to 32.3	16	18.1	9.2 to 27.1	15	24.5	15.7 to 33.2	11	28.7	19.9
Clus B	21	18.3	10.7 to 26.0	18	19.2	11.8 to 26.6	18	25.9	19.3 to 32.4	17	29.1	22.8
Clus C	66	23.1	18.8 to 27.4	64	19.0	14.8 to 23.2	59	21.4	17.4 to 25.4	58	22.4	18.2
NOS	22	22.5	15.5 to 29.5	22	18.1	11.7 to 24.5	21	24.9	18.6 to 31.3	20	21.6	14.8
Total	125	22.1	19.1 to 25.1	120	18.8	15.9 to 21.6	113	23.2	20.4 to 25.9	106	24.0	21.7

Table 4. Number of sessions of outpatient psychotherapy across time for the different clusters.

Number of sessions psychotherapy	Baseline			End aftercare 12 months			Follow-up 24 months		
	<u>n</u>	Mean	95% CI	<u>n</u>	Mean	95% CI	<u>n</u>	Mean	95% CI
Clus A	16	37.6	.7 to 74.5	14	.3	.0 to .6	11	.2	.0 to .5
Clus B	21	25.0	15.6 to 34.4	17	.5	.0 to 1.0	17	.6	.1 to 1.2
Clus C	66	28.6	22.3 to 34.9	59	.7	.5 to .9	58	.5	.2 to .9
NOS	22	22.7	12.5 to 32.9	21	.6	.3 to 1.0	20	.3	.0 to .6
Total	125	28.1	22.2 to 34.0	111	.6	.4 to .7	106	.5	.2 to .7

In symptom level the course over time was different in patients with a cluster A disorder ($F=5.04$; $p=.03$) compared to the other clusters PD.

In number of hours worked the course over time was different in patients with a cluster B disorder ($F=4.12$, $p=.05$) compared to the other clusters PD and in patients with a cluster C disorder ($F=3.81$; $p=.05$) compared to the other clusters PD.

Patients in the booster sessions worked more hours at the end of the aftercare than patients in the re-integration training ($F=3.80$; $p=.05$).

In psychotherapy sessions there was no effect of PD and type of aftercare.

Table 5. Effect of PD and aftercare on outcome

	Symptoms						Employment status						Number of s	
	End aftercare 12 months		Follow-up 24 months				End aftercare 12 months		Follow-up 24 months				End aftercare 12 months	
	B	p	B	p	F	p	B	p	B	p	F	p	B	p
Type of aftercare	-3.41	.50	-8.85	.09	1.97	.16	5.04	.05	4.23	.13	3.80	.05	.03	.87
Cluster A	.74	.94	-21.12	.03	1.55	.22	3.00	.54	9.77	.07	2.02	.16	-.31	.32
Cluster B	-.21	.80	-11.00	.19	.86	.36	-1.18	.77	6.66	.13	.53	.47	.02	.96
Cluster C	-.18	.78	-11.52	.08	1.42	.24	-3.50	.29	2.56	.47	.02	.88	.14	.51
Time					.03	.86					.37	.54		
Time x type					1.09	.30					.11	.74		
Time x clus A					5.04	.03					2.17	.14		
Time x clus B					1.13	.29					4.12	.05		
Time x clus C					2.14	.15					3.81	.05		

*adjusted for baseline of corresponding outcome (for symptoms and work: start aftercare; for psychotherapy: start inpatient program)

Discussion

The main conclusion is that the patients in this study in general showed a different course in improvement depending on the cluster PD. Symptomatic improvement was slower in cluster A patients; cluster B patients showed a more fluctuating pattern. At follow-up though, there was no difference in symptom levels between patients of all clusters PD. Regarding employment status, cluster A and cluster B patients worked more hours at follow-up than cluster C patients and patients with a PD NOS. Patients in the booster sessions worked more hours at the end of the aftercare compared to patients in the re-integration training. Type of aftercare had no effect on the other outcome measurements or moments.

The fact that cluster C patients had no better outcome than patients with other clusters of personality disorders was also found by Gude and Vaglum (2001) and by Wilberg et al (1998b). The latter study found larger effect sizes on symptom levels (GSI) for cluster A patients (0.78) compared to cluster B (0.44) and cluster C (0.59) patients. On the Global Assessment of Functioning (GAF) the effect size for the cluster A patients was smaller (0.93) compared to cluster B (1.44) and cluster C (1.50); moreover, the GAF score at admission in cluster A patients was much lower compared to the GAF of the other clusters.

Patients in the booster sessions worked more hours compared to patients in the re-integration training, despite the fact that the re-integration training was aimed at work-resumption. Our hypothesis is that the format of the booster sessions with the same therapists and content as the primary treatment explains the favorable result of the booster sessions (see Chapter 2).

The results of this study suggest that patients with a cluster A or B personality disorder have no worse results after short-term inpatient psychotherapy followed by aftercare compared to cluster C or NOS patients. This could be due to selection of cluster A and B patients in the inpatient program. All patients had longstanding personality problems and unsuccessful previous psychotherapeutic treatment(s), but they were able to formulate a focus in their problems, had sufficient ego strength, some problem-free areas in life and an adequate level of motivation for intensive inpatient treatment, as judged by the intaker. The DSM-IV classification might be not decisive regarding the severity or recovery-chance of the disorder. This is in line with the present discussion to revise the categorical DSM-IV approach into a dimensional, integrative model in DSM-V (Widiger, & Simonsen, 2005; Livesley, 2001), in which four or five dimensions of (mal)adaptive personality functioning are integrated in a hierarchical model.

There were several limitations in our study concerning selection and number of patients. The fact that the type of aftercare had no differentiating effect for patients with certain personality disorders could be caused by the limited number of patients (64 in each type of aftercare). Another limitation was the possible measurement errors in the assessment instruments. Cluster A PD, especially the paranoid personality disorder, might have been over-rated.

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Chapter 4. The impact of psychological variables on the effectiveness of inpatient psychotherapy followed by aftercare

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Abstract

Background

A wide range of psychological variables has been examined for their predictive power on psychotherapeutic process and outcome. In this study we investigated several psychological variables simultaneously in order to build an empirical prognostic model.

Method

This study investigated the impact of the pretreatment level of defensive mechanisms, five-factor personality traits, and social support on outcome of short-term inpatient psychotherapy (STIP) followed by an aftercare program in 128 patients with personality disorders. Outcome measures were symptom levels, employment status, and number of outpatient psychotherapy sessions. Structural relationships between variables were examined using structural equation modeling.

Results

Patients who scored higher on conscientiousness and patients with more positive social support had fewer symptoms at two-year follow-up. Patients with a more mature defensive style showed more symptoms. The booster sessions had a better effect on symptomatic improvement than the reintegration training. The three outcome measures were associated at follow-up: patients with fewer symptoms worked more hours and had fewer sessions of psychotherapy.

Conclusion

In general all patients showed substantial improvement after short-term inpatient psychotherapy followed by aftercare. The match between treatment program and selected patients was successful which might be an explanation why psychological variables do not differentiate with respect to outcome.

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Introduction

Over the years, a wide range of psychological variables has been examined in studies predicting the psychotherapeutic process and outcome, e.g. expectancies, readiness to change, ego strength, psychological mindedness, and interpersonal variables. Many of these predictors were tested in the context of eclectic, cognitive-behavioral, psychodynamic, group therapy, or in day treatment modalities (Clarkin & Levy, 2004).

The results of intensive day programs, as reported in the literature, provide little evidence of consistent relationships between specific patient characteristics and patient success (Piper, Joyce, Azim & Rosie, 1994). According to the authors this might be due to variability among the programs and dependent variables, no selection of variables on theoretical grounds, a too large number of predictors and improper statistical techniques. Piper et al (1994) looked at seven patient characteristics and found two strong predictors for success in an 18 week day treatment program: psychological mindedness and quality of object relationships.

Combinations of variables will probably show higher predictive value than either one alone. To our knowledge there are no studies on the predictive value of psychological variables in short-term inpatient psychotherapy (STIP). On theoretical grounds (Clarkin & Levy, 2004; Høglend & Perry, 1998; Trijsburg, Spijker, Van, Duivenvoorden & Perry, 2003; Miller, 1991; Ogrodniczuk, Piper, Joyce, McCallum & Rosie, 2003; Higgitt & Fonagy, 1993) and clinical experience, we expected the following three psychological variables to be associated with a positive outcome of STIP: overall defense functioning, personality traits and social support. First, Høglend and Perry (1998) reported maturity of defensive functioning to be associated positively with global functioning (Global Assessment of Functioning, GAF) in depressive patients after six months of psychotherapy. In a behavioral group treatment for chronically fatigued coronary patients, the maturity of defensive functioning at baseline appeared to be associated with a reduction of anxiety symptoms, enhanced self-confidence and better emotional functioning six months after the start of the treatment (Trijsburg et al, 2003). Second, based on a linguistic and structural approach (Digman, 1990), the five-factor model is broadly accepted as a reliable and valid measure of personality traits (Costa, 1991). The Dutch translation of the Five Factor Personality Inventory (FFPI, Hendriks, Hofstee & de Raad, 1999) consists of extraversion, agreeableness, conscientiousness, emotional stability, and autonomy. Miller (1991) used the NEO-PI, which is largely overlapped by the FFPI, and found a positive relation for conscientiousness and extraversion and a negative relation for neuroticism with beneficial outcome in a sample of 101 outpatients. In another study of 107 outpatients with complicated grief, Ogrodniczuk et al (2003) found that extraversion,

conscientiousness and openness were positively associated with a favorable treatment outcome, whereas neuroticism was inversely related to a favorable outcome. Third, social support relates to the patient's ability to develop and use supportive relationships, and to the patient's perception of the availability of support systems (Clarkin & Levy, 2004). Social support has been found to predict a favorable outcome in expressive therapy (Higgitt & Fonagy, 1993). In their review of 15 studies on short-term therapy, Lambert and Anderson (1996) concluded that the capacity to relate to others was positively associated with a beneficial outcome in 9 (60%) of the studies. Moreover, social support, especially the subjective sense of support, provides a buffer against relapse and improves prognosis (Clarkin & Levy, 2004).

In sum, substantial evidence indicates that the level of defensive functioning, broad personality domains such as the five factors of the Five Factor Model, and social support predict treatment outcome following psychotherapy. The current study is the first to simultaneously investigate these variables in order to build an empirical prognostic model. A mature level of defensive functioning, emotional stability, conscientiousness, extraversion, and social support are expected to be associated with a favorable treatment outcome. As we were interested in both symptomatic and functional improvement, the following outcome measures were chosen: symptom level, occupational involvement and further psychotherapeutic treatment. The intercorrelations between the three outcome measures were also examined. As this study is part of a Randomized Clinical Trial on the effect of two different conditions of aftercare (see for more details Thunnissen, Duivenvoorden, Hakkaart-van Roijen, van Busschbach, van Tilburg, Verheul & Trijsburg, submitted), we also investigated whether type of aftercare played a role in treatment outcome.

Method

For a description of the patients and the interventions (short-term inpatient psychotherapy followed by either a re-integration training or booster sessions) in this study: see Chapter 2.

Baseline assessments

Baseline characteristics of the patients were measured at intake with a self-report questionnaire (biographical data, educational level). Axis I disorders were assessed by the intaker. Axis II disorders were measured with the Structured Interview for DSM-IV Personality disorders (SIDP-IV; Pfohl, Blum, & Zimmerman, 1995; translated by De Jong, Derks, van Oel & Rinne, 1996).

Overall defensive functioning (ODF) was measured with the Defensive Style Questionnaire (DSQ-42; Trijsburg, Spijker, Van, Hesselink & Duivenvoorden, 2000), which was based upon the DSQ-40 (Andrews, Singh & Bond, 1993). The DSQ-42 consists of 42 items measuring 21 defense mechanisms on a 9-point Likert scale (1: strongly disagree, 9: strongly agree). The ODF score is calculated by multiplying the raw item scores by weights determined by expert ratings, and dividing this sum total by the sum total of the raw item scores. The higher the ODF score (range 1-7), the more mature the overall level of defensive functioning. The internal consistency of the ODF score (mean Cronbach's α in three samples was 0.80), as well as the discriminative and predictive validity of the ODF score have been found to be satisfactory (Trijsburg et al, 2000).

Personality traits were measured with the 100-item Five Factor Personality Inventory (FFPI; Hendriks, Hofstee & de Raad, 1999; Hofstee, de Raad & Goldberg, 1992). The five factors are extraversion, agreeableness, conscientiousness, emotional stability and autonomy. Internal consistencies of the scales (Cronbach's α) vary from 0.81 to 0.86 and the test-retest correlations vary between 0.74 and 0.79 (Hendriks et al, 1999). Four of the five factors show a high convergent validity with the NEO-PI-R factors; only autonomy seems to have a slightly different meaning as compared to the NEO-PI-R –Openness scale: autonomy partly denotes leadership and intellectual style, and correlates with NEO-openness with 0.20 (Hendriks, Hofstee & de Raad, 1999).

Social support was measured with the Social Support List (SSL- interactions and discrepancies, Van Sonderen, 1991, 1993), consisting of 34 questions about positive interactions (i.e., experienced positive support), seven questions about negative interactions (i.e., experienced negative support), and 34 questions about discrepancies in experienced and wished-for positive support. The reliabilities of the subscales vary from moderate to excellent (Cronbach's α 's ranging from 0.69 to 0.96; test-retest correlations range from 0.56 to 0.85) (Van Sonderen, 1993).

Outcome assessment

Symptom level was measured with the Symptom Checklist (SCL-90; Derogatis, 1977; translated by Arrindell & Ettema, 1981) at the start of the primary treatment (baseline, T1), at the end of the aftercare (12 months, T2), and at follow-up (24 months, T3). The SCL-90 average score (range 90 to 450) was transformed into a Global Severity Index (GSI) score (range 0 to 4). The reliability of the SCL-90 is good (Cronbach's α = 0.97, test-retest

reliability estimates for varying time-intervals ranged from 0.78 to 0.91; Arrindell & Ettema, 1981).

Employment status was defined as the number of hours a person worked, and was measured with the Health and Labor Questionnaire (Hakkaart-van Roijen, Essink-Bot, Koopmanschap, Bonsel & Rutten, 1996). The HLQ is a validated instrument for collecting data on productivity losses due to absence from work, reduced efficiency at work, and difficulties with job performance, respectively.

Type, duration and intensity of psychotherapeutic treatments other than the aftercare were measured with a self-report questionnaire (Nugter, van Bragt & Kumeling, 1998).

Statistical analysis

Structural Equation Modelling (SEM) was applied to explore the level and course of the outcome variables -symptom level, occupational involvement, and number of outpatient psychotherapy sessions-, and subsequently to determine the impact of the psychological variables on outcome. In general, modelling is aimed to identify the most plausible model. The models may differ in co-variances (or correlations in case of standardized values) to be reproduced from these models. Whereas one model enables a correlation between two constructs, another model requires this correlation to be set at zero (in other words, no correlation is allowed). Whether one or more of these models are plausible, depends on whether they enable to reproduce the observed (co)-variances adequately. Two principles of SEM (i.e. growth analysis) are that individuals are allowed to differ in their level of symptoms, number of hours worked and number of psychotherapy sessions, and that they are allowed to differ in their course of these outcome measurements across time.

It is a scientific principle to build the models as parsimonious as possible, under the condition that the final model is plausible, both theoretically and statistically (Jöreskog, 1993). A major advantage of SEM is its ability to estimate all parameters in the model simultaneously and to enable testing the model fit (Jöreskog & Sörbom, 1993; Jöreskog, 1993). Compared to classical MANOVA for repeated measurements, applying SEM to repeated measurements has several advantages:

1. individuals will not have to be measured at exactly the same time point (unequal time intervals are allowed).
2. SEM can handle missing data
3. The error-variance/covariance matrices across time can be modelled flexibly
4. SEM enables to introduce time varying co-variables, and

5. Person specific deviations from the group level are allowed (van Dooren, 2005).

The three outcome variables (i.e., symptom level, occupational involvement, and number of outpatient psychotherapy sessions) were measured at baseline (T1), after 12 months (T2) and 24 months (T3). The inter-relationships of the outcome variables were identified, specified and tested. Next, the relevance of the psychological variables was examined by specifying the regressions of all outcome variables at all three measurement moments on the psychological variables. Finally, it was tested whether the psychological variables (partly) determined the outcome variables, and whether the impact of the type of aftercare affected the outcome variables

To test the adequacy of the models, χ^2 -square tests were used for determining the model-fit. The values of χ^2 , its *p*-value and the number of degrees of freedom (*df*) were examined. A non-significant *p*-value ($p > 0.05$; Jöreskog, 1993) and a ratio of $\chi^2 / df < 1.5$ was considered to represent a good model-fit. Apart from this, three other goodness-of-fit indices were used, i.e. Comparative Fit Index (ideal if $CFI > 0.90$; Bentler, 1990), Tucker-Lewis Index (ideal if $TLI > 0.90$; Tucker & Lewis, 1973); and Weighted Root Mean Square Residual (preferably $WRMR < 1.0$; Muthén & Muthén, 1998).

As several outcome variables were categorical, the estimation method chosen was WLSMV (Weighted Least Squares Mean and Variance adjusted). This estimation method allows for testing differences between nested models by using the χ^2 test statistic. All statistical testing took place on 0.05 level significance (two-sided). Possible differences in randomization in the two types of aftercare were corrected.

Results

For information on patient characteristics and primary treatment and aftercare: see Chapter 2.

Scores on psychological variables of the study group compared to reference groups

The overall defensive functioning (ODF) score was lower in the study group than in a group of psychiatric outpatients and much lower than in students (see Table 1). The study group appeared to be less extravert, less emotionally stable and less autonomous compared with the normal population. They did not differ in agreeableness and conscientiousness. Positive and negative support was comparable with that of the normal population. However, the patient group showed much greater discrepancies between experienced and wished-for support than the normal population (Cohen's $d = 3.4$). This meant that the patient group experienced the

support as insufficient, although the support available did not deviate from that in the normal population. The patients in the re-integration training scored lower on overall defense functioning compared to the patients in the booster sessions ($p=.01$).

Table 1. Scores on predictors of study group compared to reference groups

	Study group (<u>n</u> = 128)		Re-integration training (<u>n</u> =64)		Booster sessions (<u>n</u> =64)		Reference group			
Questionnaire	mean	SD	mean	SD	mean	SD	<u>n</u>	mean	SD	Cohen's d
Overall defensive functioning ODF	3.63	0.32	3.56	.24	3.69	3.73	533 ¹ 69 ²	3.75 4.46	0.51 0.51	-0.25 -2.09
FFPI Extraversion	-0.49	1.24	-.36	1.81	-.62	1.28	2494 ³	0.39	1.00	-0.87
Agreeableness	1.80	1.25	1.85	1.19	1.76	1.32	2494	2.18	1.00	-0.37
Conscientiousness	0.73	1.24	.93	1.21	.54	1.26	2494	0.95	1.00	-0.22
Emotional stability	-0.90	1.14	-.71	1.20	-.1.08	1.04	2494	0.82	1.00	-1.71
Autonomy	0.35	1.45	.32	1.53	.38	1.38	2494	1.18	1.00	-0.81
Social support										
Positive SSL-P	77.89	13.93	76.72	12.46	79.17	15.26	514 ⁴	84.1	12.4	-0.49
Negative SSL-N	12.48	3.58	12.55	3.91	12.42	3.24	514	11.2	2.5	0.51
Discrepancy SSL-D	77.93	14.92	59.71	14.20	59.13	14.20	514	44.6	9.7	3.44

¹ psychiatric outpatients

² medical students

³ Dutch citizens

⁴ students, selected at random

Inter-correlations of the predictor variables

Table 2 shows the partial correlations between the predictor variables. We see a negative correlation between level of defensive functioning and type of aftercare, which means that, despite the randomization, more patients with a low level of defense were assigned to the re-integration training.

Intra- and inter-correlations of the outcome variables

Table 3 shows the observed inter-correlation matrix of the three outcome variables across time. Symptom level and employment status were substantially correlated at each measure moment. The number of psychotherapy sessions was only correlated between the end of aftercare and at follow-up. Patients with fewer symptoms worked more hours at the end of the aftercare and at follow-up and had had fewer psychotherapy sessions. Patients who worked more hours had also had fewer psychotherapy sessions.

The means and the standard deviations of the outcome variables are presented in the third and second row from the bottom of Table 3. The level of symptoms decreased significantly between baseline and follow-up (Cohen's $d=1.57$). Employment status increased slightly from 21.0 to 24.2 hours worked per week. The number of psychotherapy sessions decreased from 25.7 in the two years before baseline to 7.0 (3.0 at T2 plus 4.0 at T3) in the two-years till follow-up.

Patients in the re-integration training showed more symptoms and worked fewer hours at follow-up.

Table 3. Correlation matrix, including means and SD of outcome variables within and across time (n=101).

		Symptom level			Hours worked			Sessions pt		
		t1	t2	t3	t1	t2	t3	t1	t2	t3
Symptoms	t1									
	t2	.33								
	t3	.42	.65							
Work	t1	-.03	-.11	.00						
	t2	-.04	-.20	-.21	.55					
	t3	-.06	-.24	-.23	.39	.68				
Sessions pt	t1	-.01	-.10	-.12	-.06	.11	-.04			
	t2	.26	.31	.13	.09	-.08	-.21	.09		
	t3	.11	.24	.21	-.06	-.25	-.21	.12	.42	
Mean		1.25	.47	.42	21.9	23.0	24.1	25.7	3.0	4.0
SD		.53	.39	.41	17.0	14.6	14.7	34.2	6.2	8.7
Type		.01	.15	.26	.03	-.28	-.22	-.05	-.17	-.04

t1 = baseline

t2 = end aftercare, 12 months

t3 = follow-up, 24 months

Correlations with a .01 level of significance (two-sided) are bold-faced

Correlations with a .05 level of significance (two-sided) are bold-faced and in italics

Identifying and testing of plausible models

In order to identify the most plausible model we explored the following options:

1. The psychological variables were related to the impact of the intervention (STIP followed by aftercare), yes (= free) and no (= zero) respectively;
2. The cross regression of the outcome variables was set at free, zero or equal respectively. This means that we tested whether there was an impact of the symptoms on the other outcome variables yes or no (= zero). If the answer was positive, then we tested whether the impact could be considered equal or not (= free).
3. The (residual) inter-correlations of the outcome variables were estimated at zero (no inter-correlations), equal (inter-correlations considered to be equal) or free (not equal).
4. This exploration resulted in 18 models, differing in degree of restriction (see Table 4). Models 2, 8, 11 and 17 performed best. If competing models perform statistically equally, the most simple model with the least loss of information is preferred. This would be the most restricted model, model 17. However, one could choose another model on a theoretical basis. As the type of aftercare was influential on outcome (patients in the re-integration training group showed more symptoms and less occupational involvement at follow-up), we preferred model 8, where the influence of the type of aftercare was taken into account.

In WLSMV estimation χ^2 square testing is used to compare the more restricted model (model 17) to the less restricted model (model 8). A χ^2 square test for difference was not significant (8.13; df=6; p=.23). We concluded that model 8 and 17 are equally applicable.

Table 4. Performance of different candidate final models

				Statistical performance measures						
	Type aftercare	Crossregression	Intercorrelations	X ²	df	X ² /df	p	CFI	TLI	WRMR
1	free	free	free	24.44	29	.84	.71	1.00	1.13	.67
2	free	free	zero	25.68	30	.86	.69	1.00	1.12	.69
3	free	free	equal	23.83	29	.82	.74	1.00	1.15	.67
4	free	zero	free	37.56	30	1.25	.16	.82	.80	.85
5	free	zero	zero	38.69	31	1.25	.16	.82	.80	.87
6	free	zero	equal	37.84	31	1.22	.19	.84	.82	.85
7	free	equal	free	25.14	29	.87	.67	1.00	1.11	.70
8	free	equal	zero	26.90	30	.90	.63	1.00	1.08	.73
9	free	equal	equal	25.37	30	.85	.71	1.00	1.13	.70
10	zero	free	free	27.86	31	.90	.63	1.00	1.08	.74
11	zero	free	zero	29.56	32	.92	.59	1.00	1.06	.77
12	zero	free	equal	28.10	32	.88	.66	1.00	1.10	.74
13	zero	zero	free	38.55	32	1.21	.20	.84	.83	.90
14	zero	zero	zero	39.39	33	1.19	.21	.85	.84	.91
15	zero	zero	equal	38.89	33	1.18	.22	.86	.86	.90
16	zero	equal	free	28.87	32	.90	.63	1.00	1.08	.76
17	zero	equal	zero	30.10	32	.94	.56	1.00	1.05	.79
18	zero	equal	equal	28.24	32	.88	.66	1.00	1.10	.76

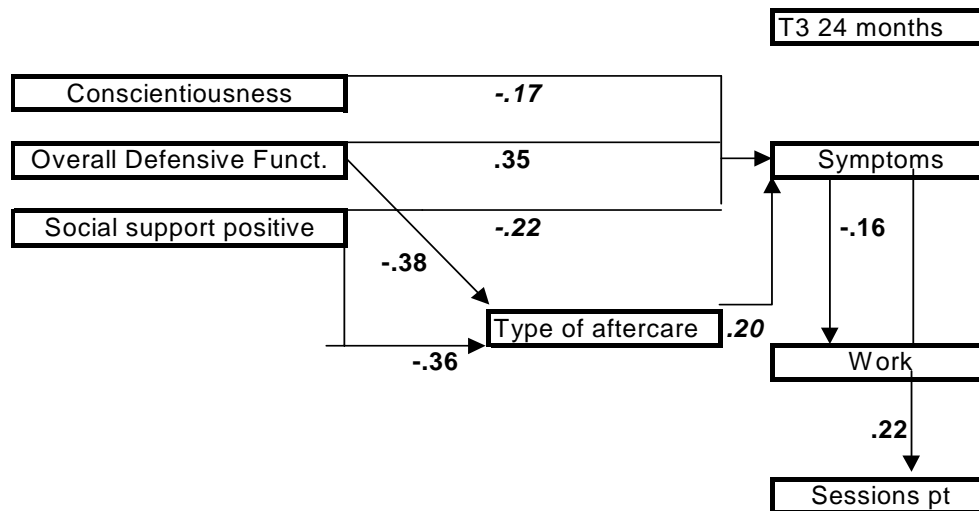
Results of the effect of the psychological variables and type of aftercare on outcome

Figure 1 shows that those patients who scored higher on consciousness and those who experienced more positive social support at baseline showed fewer symptoms at follow-up. Patients with a more mature defensive style showed more symptoms at follow-up. Besides, there was an indirect effect of the symptom level on the two other outcome measures: patients with fewer symptoms worked more hours and had fewer sessions psychotherapy at follow-up. Regarding the role of type of aftercare, we found that the booster sessions had a better effect on symptomatic improvement than the re-integration training since patients in the re-integration training showed more symptoms at follow-up.

Despite the randomization, we found some differences between the patients in the re-integration training and those in the booster sessions: the patients in the re-integration training

showed a less mature defensive style and experienced less positive support than those in the booster sessions.

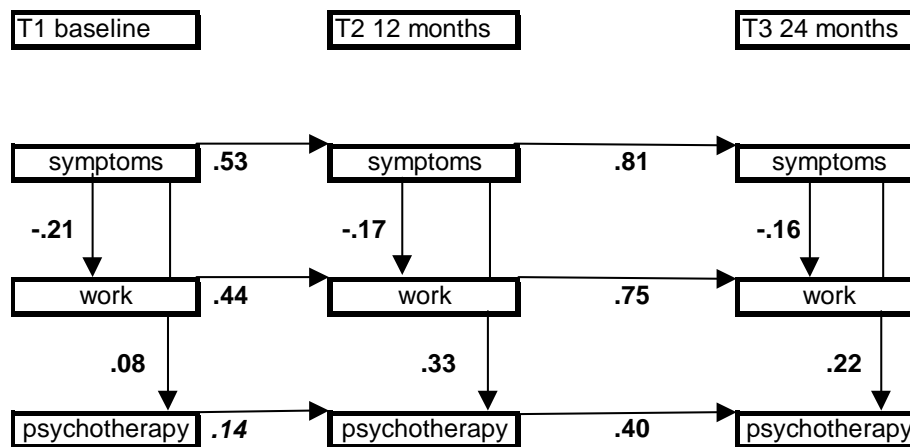
Figure 1. Effect of the predictors on the outcome variables assessed at 24 months; model 8



Results of cross-regression and inter-correlations

For the three outcome measures, auto-regressions were substantial (see Figure 2). Moreover, at each measurement moment, the symptom level had a negative impact on occupational involvement and a positive impact on the number of psychotherapy sessions, meaning that patients with more symptoms worked less hours and had more psychotherapy sessions.

Figure 2. Crossregression and intercorrelations within outcome measures across time, model 8



Discussion

The results of this study partially support our hypotheses: conscientiousness and positive social support were associated with favorable treatment outcome. Conscientious patients and patients who experience more positive support might be better able to adapt to the demands of this three-month, highly structured group-treatment program and use the opportunities it offers. Contrary to our expectations, patients with a more mature level of defense showed more symptoms at follow-up, and emotional stability and extraversion were not predictive for outcome.

As to defensive functioning, the Overall Defensive Functioning (ODF) was associated positively with the Global Assessment of Functioning (GAF) in two earlier studies (Trijsburg et al, 2000; Høglend & Perry, 1998). However, Trijsburg et al. measured this relationship cross-sectionally, and Høglend and Perry's study showed the ODF to be marginally significant in predicting the Global Severity Index (GSI) at six months follow-up. The scores for ODF based on self-reporting were also lower in a study group of depressed patients than observer-rated ODF (Trijsburg et al, 2000). An explanation for our results could be that in our research group the overall level of defensive functioning may not be as relevant to predicting outcome as the flexibility of defensive functioning and the interplay between more mature and more primitive defense mechanisms. (Ogden, 1992). This hypothesis could be explored

further by examining the internal correlations within the ODF of the different levels of defenses.

The patients in the study group in general scored low on extraversion (Cohen's $d = -0.87$ compared to the reference group from the normal population) and on emotional stability (Cohen's $d = -1.71$ compared to the reference group). This restriction of range might mean that they are not a representative group, and could explain the lack of predictive power. This might not have been the case in Miller's (1991) study; his patients were outpatients, and possibly scored more similarly to the level of the general population on extraversion and emotional stability.

There was no direct effect of the predictors on the two other outcome measures occupational involvement and number of outpatient psychotherapy sessions. There was an indirect effect through symptom level: patients with fewer symptoms showed more occupational involvement and had had fewer sessions psychotherapy at follow-up.

The conclusion of this study is that in general all patients showed substantial improvement after short-term inpatient psychotherapy followed by aftercare. The match between treatment program and selected patients is successful, which might be an explanation why psychological variables do not differentiate with respect to outcome.

There were several limitations to our study. The patients were a selected group, as most of them had received outpatient psychotherapy previously, and approximately 50% of those applying for treatment were accepted. Other patient characteristics that may have influenced the outcome, e.g., motivation, psychological mindedness and quality of object relations were not taken into account. Variables like adherence to treatment, composition of patient groups, and matching between patient characteristics and setting characteristics were not investigated. Outcome was measured by self-reports only, although objective data like number of hours work and number of sessions psychotherapy were investigated. Finally, measurement errors in the assessment instruments could not be taken into account in a complicated model like the Structural Equation Modelling.

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Chapter 5. The differences between dropouts, successful and non-successful patients in short-term inpatient psychotherapy.

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Abstract

Aim

To determine which variables assessed at baseline predict dropout and treatment outcome in a short-term inpatient psychotherapeutic program followed by one of two formats of aftercare.

Method

In a group of 152 patients, we had 128 patients who completed the inpatient program followed by either booster sessions or a re-integration training; 24 patients were dropouts. The differences between dropouts and completers, and – in the completer group - between those with favorable and unfavorable outcomes, were examined. A favorable outcome was defined as having a low level of symptoms, having a paid job, or requiring no further psychotherapeutic treatment at follow-up 24 months after baseline

Results

More severe symptomatology, unemployment, and more autonomy at baseline predict dropout. Unfavorable symptomatic outcome is predicted by more severe symptomatology, male gender, less mature defense functioning, less extraversion, and less positive support at baseline. Unfavorable occupational outcome is predicted by unemployment and less autonomy at baseline. Needing further psychotherapy during follow-up is predicted by less extraversion at baseline.

Conclusion

This treatment program may be made more beneficial by paying extra attention to inpatient variables like therapeutic relationship and outpatient variables like unemployment in those patients who have more chance of becoming a dropout or of a non-successful outcome.

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Introduction

There is little research into which characteristics differentiate dropouts from treatment completers, and successful from non-successful patients, in short-term inpatient or day-treatment. Piper, Joyce, Azim and Rosie (1994) referred to 16 studies that investigated patient characteristics associated with treatment retention in intensive day programs and their treatment results. There was little evidence of any consistent relationships between specific predictors and patient success.

Piper et al (1994) focused on seven patient characteristics in their research into a psychodynamic, 18-week day-treatment program for 5 days a week: quality of object relations, psychological mindedness, diagnosis on Axis II, symptom level, age, marital status, and previous psychiatric hospitalization. Completers could be differentiated from dropouts in that they had a more mature history of relationships, they were older and were married. Successful patients were more psychologically minded and had a higher quality of object relations. Presence of a personality disorder was inversely related to a favorable outcome, whereas a previous hospitalization was related to a favorable outcome. The patient's initial level of symptomatic disturbance was not a significant predictor.

Most research into patient characteristics has been done in outpatient psychotherapy but not many consistent relationships have been found. As to diagnosis, the treatment effects of symptom disorders in patients with co-occurring personality pathology are attenuated in contrast to those without personality disorders (Clarkin & Levy, 2004). Wilberg, Friis, Karterud, Mehlum, Urnes & Vaglum (1998) found that, after a day-treatment program, patients without personality disorders or with cluster C personality disorders improved faster and to a higher level of global functioning (GAF) than patients with a cluster A or B personality disorder. Ogrodniczuk, Piper, Joyce, & McCallum (2001) found that, in short-term individual psychotherapy, the number of personality disorders was significantly related to outcome at post-therapy and at the 12-month follow-up. On the other hand, Gude and Vaglum (2001) found no difference in outcome between patients with only a cluster C personality disorder compared to patients with a cluster A or B personality disorder or a cluster C combined with a cluster A or B disorder.

Severity of symptoms is shown to be related to poor treatment response in most studies (Clarkin & Levy, 2004, Lincoln, Rief, Hahlweg, Frank, von Witzleben, Schroeder, & Fiegenbaum, 2005). Non-significant relationships were found for age and gender (Clarkin & Levy, 2004). For previous psychiatric hospitalization there was evidence of a curvilinear

relationship: an intermediate number of prior inpatient admissions had a beneficial effect (Ferber, Oswald, Rubin, Ungemack & Schane, 1985).

Clarkin en Levy (2004) concluded – after reviewing a large number of studies into the influence of client variables on the effect of psychotherapy – that the interaction between different variables is decisive in determining the outcome. It was often unclear whether a client variable is a predictor or a mediator, or a moderating variable. Their conclusion was that client variables have a limited and inconsistent influence on the effects of psychotherapy. The largest influence on the therapeutic process is, in their opinion, the interaction between therapist and client, especially the ability of the therapist to adapt to client variables.

Research into the characteristics of dropouts shows that they often have a lower social-economic status, show negative or incongruent expectations of the treatment, and suffer from more severe psychopathology, especially borderline pathology (Chiesa, Hrahorad & Longo, 2000; Clarkin & Levy, 2004). They more often refuse to give up old coping strategies, like addiction or self-mutilation (Blount, King & Menzies, 2002). Our own research into dropouts (Thunnissen, Remans, Trijsburg, in press) showed that they are, in general, older and more often likely to be men compared to treatment completers.

As a measurement for success after three months of inpatient psychotherapy, we used three different outcome measurements: symptom level, employment status, and further psychotherapeutic treatment. As predictors we examined a number of the variables listed above, i.e., age and gender, previous psychotherapeutic treatments, and symptom level at admission. We also examined the relevance of the following variables at baseline: employment status, personality characteristics, maturity of defense style, and social support. Finally, we included type of aftercare as a predictor.

Method

In Chapter 2 there is a description of the patients and the interventions (short-term inpatient psychotherapy followed by either a re-integration training or booster sessions) used in this study.

Outcome variables

Symptom level was measured with the Symptom Checklist (SCL-90; Derogatis, 1977; translated by Arrindell & Ettema, 1981). The SCL-90 total score (range 90 to 450) was transformed into the Global Severity Index (GSI) score (range 0 to 4). In this study we used a $GSI < 0.46$ as a cut-off score between a normal and a pathological level for men, and < 0.67

for women. The reliability of the SCL-90 was good (Cronbach's $\alpha = 0.97$, test-retest reliability estimates for varying time-intervals ranged from 0.78 to 0.91; Arrindell & Ettema, 1981).

Occupational involvement was defined as the number of hours a person had paid work, and was measured with the Health and Labor Questionnaire (HLQ) (Hakkaart-van Roijen, Essink-Bot, Koopmanschap, Bonsel, & Rutten, 1996). The HLQ is a validated instrument for collecting data on productivity losses due to absence from work, reduced efficiency at work, and difficulties with job performance. In this study we distinguished between three groups, i.e., those working 24-40 hours a week, 0-24 hours, and having no paid work at all.

Type, duration, and intensity of psychotherapeutic treatments (other than the aftercare) were measured with a self-report questionnaire in which type (inpatient treatment, day-treatment, or different outpatient psychotherapies) and extent (number of weeks or months in inpatient- or day-treatment, and number of sessions in outpatient psychotherapy) were scored (Nugter, van Bragt & Kumeling, 1998).

Predictor variables

Age, gender, work situation, and previous treatments were registered at admission. The Axis I disorder was based on clinical assessment. Axis II disorders were measured with the Structured Interview for DSM-IV Personality disorders (SIDP-IV; Pfohl, Blum, & Zimmerman, 1995; translated by De Jong, Derks, van Oel & Rinne, 1996). Personality traits were measured with the 100-item Five-Factor Personality Inventory (FFPI; Hendriks, Hofstee & de Raad, 1999; Hofstee, de Raad & Goldberg, 1992). The five factors are extraversion, agreeableness, conscientiousness, emotional stability and autonomy. Internal consistencies of the scales (Cronbach's α) vary from 0.81 to 0.86 and the test-retest correlations vary between 0.74 and 0.79 (Hendriks et al, 1999). Four of the five factors show a high convergent validity with the NEO-PI-R factors; only autonomy seems to have a slightly different meaning compared to the NEO-PI-R–Openness scale ($r=0.20$, ns). Autonomy partly denotes leadership and intellectual style (Hendriks, Hofstee & de Raad, 1999).

Overall defensive functioning (ODF) was measured with the Defensive Style Questionnaire (DSQ-42; Trijsburg, Spijker, Van, Hesselink & Duivenvoorden, 2000), which was based upon the DSQ-40 (Andrews, Singh & Bond, 1993). The DSQ-42 consists of 42 items measuring 21 defense mechanisms on a 9-point Likert scale (i.e., 1=strongly disagree to 9=strongly agree). The ODF score is calculated by multiplying the raw item scores by weights determined by expert ratings, and dividing this total by the total of the raw item scores. The higher the ODF

score (range 1-7), the more mature the overall level of defensive functioning. The internal consistency of the ODF score (mean Cronbach's α in three samples was 0.80), as well as the discriminative and predictive validity of the ODF score have been found to be satisfactory (Trijsburg et al., 2000).

Social support was measured with the Social Support List (SSL- interactions and discrepancies, Van Sonderen, 1991, 1993), consisting of 34 questions about positive interactions (i.e., experienced positive support), seven questions about negative interactions (i.e., experienced negative support), and 34 questions about discrepancies in experienced and wished-for positive support. The reliabilities of the subscales vary from moderate to excellent (Cronbach's α 's ranging from 0.69 to 0.96; test-retest correlations range from 0.56 to 0.85). For a comparison of patient group and reference group with respect to the various variables, see Table 1, Chapter 4. The patient group was less extravert, less emotionally stable, less autonomous, and experienced more discrepancy in experienced and wished-for social support than the reference groups.

Design

The design was a randomized clinical trial in which the two methods of aftercare were compared in effectiveness. Measurements were made at baseline, at the end of the aftercare (12 months after baseline), and at follow-up (24 months after baseline). Predictor variables and baseline values of the outcome variables were measured at baseline, when the difference between dropouts and treatment completers was also measured. At the end of the aftercare (12 months), and at follow-up (24 months), we measured symptom level, work status and whether a patient was still having psychotherapeutic treatment.

Statistical analyses

First of all, the means and the standard deviations were used as measures of level and dispersion for continuous data. For categorical data we used percentages. In addition to the comparison of mean scores with norm group data, Cohen's d was estimated to obtain insight into the relative difference between the patient group and the norm group. The standard deviation of the norm groups was used as the denominator in the calculation of Cohen's d . Logistic regression analysis was applied to differentiate dropouts from completers, both in the analysis of individual (univariate) and joint (multivariate) predictor variables.

In order to differentiate beneficiary from non-beneficiary effects on symptoms and earlier psychotherapy, both at the end of aftercare and after 24 months, again the method of logistic

regression analysis was applied. To differentiate the three categories of paid work (more than 24 hours, 0-24 hours and no paid work), the method of multinomial analysis was applied to the individual variables. Further, the joint performance of the variables was explored by using multivariate modeling.

To gain insight into the performance of the multivariate model, the Spearman rank correlation was used to estimate the association between the individual variables and the predicted value derived from the regression coefficient of the multivariate model. Variables with a correlation greater or equal to 0.40 were added to the results of the multivariate model. All significance testing was two-sided ($p \leq 0.05$).

Results

Dropouts versus treatment completers

Of the 152 patients, 128 patients completed the 3-month treatment program, whereas 24 dropped out prematurely (15.8%). The average stay of the dropouts was 32 days (range 3-70 days), while all completers stayed 90 days. Of the dropouts, 16 were male and 8 female. The dropouts were, on average, 5 years older than the completers (40.3 ± 9.6 years, and 35.5 ± 8.0 years, respectively; $T=2.60$, $p=.01$). Comparatively more men were dropouts (68% of dropouts were men vs. 34% completers; $\chi^2= 9.86$, $df=1$, $p<.01$).

Differences between dropouts and completers

In the univariate analysis, dropouts appeared to be more often men and older than the completers (Table 1). In the Spearman correlation a relatively high percentage of dropouts had more symptoms, were more often unemployed, and had higher scores for autonomy at baseline than completers (see Table 5).

Table 1. Baseline characteristics for patients who completed the program and for dropouts; univariate analysis*

	Completers		Dropouts		Odds ratio	p	95% CI
n	128		24				
Men (n; %)	44	34.4%	16	66.7%	1.07	.02	1.01 to 1.12
Age mean (sd)	35.6	(8.1)	40.0	(9.7)	.26	.00	.10 to .66
Having paid work at baseline	89	69.5%	12	50.0%	.47	.11	.18 to 1.18
Sessions psychotherapy in 2 years before baseline, mean (sd)	24.6	(32.3)	17.2	(17.7)	.99	.35	.96 to 1.02
Inpatient or day-treatment in 2 years before baseline	16	12.5%	3	12.5%	.89	.86	.23 to 3.45
GSI baseline (sd)	1.25	(.55)	1.43	(.58)	1.01	.17	1.00 to 1.02
Psychological variables:							
Extraversion	-.49		-.83		.85	.40	.59 to 1.24
Agreeableness	1.80		2.00		1.23	.29	.84 to 1.82
Conscientiousness	.73		.66		1.02	.93	.72 to 1.43
Emotional stability	-.90		-.83		1.07	.76	.70 to 1.63
Autonomy	.35		1.13		1.30	.13	.93 to 1.81
Overall defensive functioning	3.63		3.58		.73	.65	1.00 to 1.12
Positive support	77.9		75.0		1.00	.79	.96 to 1.03
Negative support	12.5		13.2		1.05	.46	.93 to 1.17
Discrepancy in support	77.9		55.5		.98	.18	.94 to 1.01

$p \leq .05$: bold.

Treatment completers: successful versus non-successful patients

Predictors of symptom level

In the univariate analysis for the prediction of symptom level, patients with fewer symptoms at baseline also had fewer symptoms at 12 and 24 months than patients with more symptoms at baseline. Extravert patients had fewer symptoms at 12 and 24 months, while patients with mature defenses had fewer symptoms at 12 months (see Tables 2a and 2b).

Table 2. Predictive performances of the individual baseline characteristics for symptom level across time

a. End of aftercare (12 months)*

	Normal level		Symptomatic level		Odds ratio	p	95% CI
Baseline	N=81		N=32				
Having paid work	58	71.6%	20	62.5%	.70	.44	.29 to 1.72
Sessions psychotherapy in 2 years before baseline, mean (sd)	27.7	37.7	19.0	20.2	.99	.40	.97 to 1.01
Inpatient or day-treatment in 2 years before baseline	11	13.6%	3	9.4%	.72	.64	.18 to 2.90
GSI baseline, mean (sd)	1.11	.49	1.46	.52	1.02	.00	1.01 to 1.03
Psychological variables:							
Extraversion	-.30		-.95		.64	.02	.45 to .93
Agreeableness	1.90		1.82		1.07	.71	.75 to 1.53
Conscientiousness	.81		.70		.95	.75	.67 to 1.33
Emotional stability	-.83		-.87		.95	.78	.65 to 1.39
Autonomy	.42		.12		.82	.19	.62 to 1.10
Overall defensive functioning	3.69		3.54		.19	.04	.04 to .93
Positive support	79.7		74.5		.98	.20	.95 to 1.01
Negative support	12.2		13.0		1.08	.21	.96 to 1.22
Discrepancy in support	57.7		62.5		1.03	.11	.99 to 1.06

* adjusted for gender, age and type of aftercare. $p \leq .05$: bold.

b. Follow-up, 24 months*

	Normal level		Symptomatic level		Odds ratio	p	95% CI
Baseline	N=78		N=30				
Having paid work	55	70.5%	18	60.0%	.65	.34	.27 to 1.59
Sessions psychotherapy in 2 years before baseline, mean (sd)	27.2	38.1	21.9	21.8	.99	.51	.98 to 1.01
Inpatient or day-treatment in 2 years before baseline	9	11.5%	5	16.7%	1.60	.45	.47 to 5.41
GSI baseline, mean (sd)	1.15	.48	1.49	.57	1.02	.00	1.01 to 1.03
Psychological variables:							
Extraversion	-.34		-.93		.70	.05	.49 to 1.00
Agreeableness	1.87		2.04		1.19	.37	.81 to 1.75
Conscientiousness	.77		.95		1.17	.41	.81 to 1.68
Emotional stability	-.87		-.86		.98	.90	.66 to 1.45
Autonomy	.39		.16		.86	.33	.64 to 1.16
Overall defensive functioning	3.65		3.63		.68	.60	.16 to 2.83
Positive support	79.0		76.0		.99	.46	.96 to 1.02
Negative support	12.5		12.5		1.01	.91	.89 to 1.14
Discrepancy in support	59.7		60.0		1.00	.95	.97 to 1.03

* adjusted for gender, age and type of aftercare. $p \leq .05$: bold.

In the Spearman correlation patients with relatively few symptoms at baseline had fewer symptoms at 12 and 24 months. In addition, female patients and patients with relatively more mature defenses had fewer symptoms at 12 months. Patients who were relatively more extravert and who had relatively more positive support at baseline had fewer symptoms at 24 months (see Table 5).

Predictors of having a paid job

In the univariate analysis for the prediction of having paid work, it appeared that patients with a full-time job at baseline more often had a full-time job at 12 and at 24 months. Extravert patients more often had a full-time job at 12 months (see Tables 3a and 3b).

In the Spearman correlation, patients who had a full-time job at baseline more often had a full-time job at 12 and 24 months, and less often had a part-time or no job at 12 and 24

months. Relatively more women had a part-time job at 12 and 24 months. Patients who scored relatively higher on consciousness more often had part-time work at 24 months. Patients who were relatively more autonomous, more often had full-time work at 12 and 24 months, and less often had part-time or no work at 12 months. Patients who experienced relatively less discrepancy in social support at baseline more often had part-time work at 24 months (see Table 5).

Table 3. Predictive performances of the individual baseline characteristics for paid work across time

a. End aftercare, 12 months*

Baseline	24-40 hrs		1-23 hrs		No paid work		Diff. full-time – no work			Diff. full-time – part-time work		
							Odds ratio	p	95% CI	Odds ratio	p	95% CI
n	67	58.3%	23	20.0%	25	21.7%						
Having paid work	52	77.6%	18	78.3%	9	16.0%	.11	.00	.04 to .34	.92	.89	.28 to 3.00
Sessions of psychotherapy [#] (sd)	28.5	(40.8)	19.9	(22.1)	19.9	(26.3)	.99	.43	.97 to 1.01	.99	.31	.97 to 1.01
Inpatient or day-treatment [#]	6	9.0%	4	17.4%	5	20.0%	2.93	.13	.74 to 11.61	2.25	.26	.55 to 9.18
GSI baseline (sd)	1.17	(.54)	1.21	(.47)	1.34	(.51)	1.01	.17	1.00 to 1.02	1.00	.78	.99 to 1.01
Psychological variables:												
Extraversion	-.28		-.51		-.97		.57	.01	.37 to .87	.81	.30	.54 to 1.21
Agreeableness	1.75		1.81		2.26		1.54	.07	.97 to 2.45	.98	.93	.65 to 1.47
Conscientiousness	.80		.78		.67		.83	.35	.57 to 1.22	.95	.81	.64 to 1.41
Emotional stability	-.88		-.85		-.78		1.21	.41	.77 to 1.89	1.06	.80	.69 to 1.62
Autonomy	.56		.10		-.10		.74	.07	.53 to 1.03	.82	.26	.58 to 1.16
Overall defensive functioning	3.66		3.58		3.64		1.21	.82	.23 to 6.29	.45	.33	.09 to 2.26
Positive support	78.6		81.8		74.1		.98	.19	.94 to 1.01	1.01	.50	.98 to 1.05
Negative support	12.1		13.1		12.5		1.05	.53	.91 to 1.20	1.09	.21	.95 to 1.25
Discrepancy in support	59.4		56.7		61.1		1.01	.68	.98 to 1.04	.99	.45	.95 to 1.02

*adjusted for gender, age and type of aftercare, [#] in two years before baseline. $p \leq .05$: bold.

b. Follow-up, 24 months*

Baseline	24-40 hrs		1-23 hrs		No paid work		Diff. full-time – no work			Diff. full-time – part-time work		
							Odds ratio	p	95% CI	Odds ratio	p	95% CI
n	68	63.0%	18	16.7%	22	20.4%						
Having paid work	51	75.0%	13	72.2%	9	40.9%	.20	.00	.07 to .57	.90	.86	.27 to 3.03
Sessions psychotherapy [#] (sd)	26.3	(40.2)	19.1	(17,5)	30.1	(33.2)	1.01	.50	.99 to 1.02	.99	.36	.96 to 1.02
Inpatient or day-treatment [#]	6	(8.8%)	3	(16.7%)	5	(22.7%)	3.63	.06	.93 to 14.16	1.71	.50	.36 to 8.00
GSI baseline (sd)	1.23	(.52)	1.11	(.54)	1.42	(.51)	1.01	.12	1.00 to 1.02	.99	.24	.98 to 1.01
Psychological variables:												
Extraversion	-.46		-.22		-.89		.72	.12	.48 to 1.09	1.12	.61	.73 to 1.70
Agreeableness	1.85		2.11		1.98		1.13	.56	.74 to 1.73	1.13	.64	.67 to 1.89
Conscientiousness	.90		.36		.97		1.00	.00	.66 to 1.52	.68	.10	.43 to 1.07
Emotional stability	-.93		-.64		-.86		1.09	.71	.69 to 1.72	1.38	.21	.83 to 2.28
Autonomy	.56		-.17		.01		.76	.11	.54 to 1.07	.67	.06	.44 to 1.02
Overall defensive functioning	3.63		3.68		3.65		1.55	.61	.29 to 8.17	1.50	.65	.26 to 8.54
Positive support	77.6		82.5		76.4		1.00	.94	.96 to 1.04	1.02	.44	.98 to 1.05
Negative support	12.8		11.6		12.3		.96	.58	.84 to 1.11	.90	.18	.76 to 1.05
Discrepancy in support	61.0		54.2		60.0		1.00	.86	.96 to 1.03	.96	.08	.92 to 1.01

*adjusted for gender, age and type of aftercare, [#]in two years before baseline. P ≤ .05: bold.

Predictors of further psychotherapeutic treatment

In the univariate analysis for the prediction of psychotherapeutic treatment, we found no significant differences (see Tables 4a and 4b). In the Spearman correlation, relatively more women had psychotherapy at 12 months. Patients who had psychotherapy at 24 months were relatively older and had participated more often in the re-integration training. Patients who were relatively more extravert had fewer sessions psychotherapy at 24 months (see Table 5).

Table 4. Predictive performances of the individual baseline characteristics for psychotherapeutic treatment (PT) across time

a. End of aftercare 12 months*

Baseline	No PT		Having PT		Odds ratio	p	95% CI
n	71		44				
Having paid work	49	69.0%	30	68.2%	.94	.87	.41 to 2.14
No. of sessions of psychotherapy in 2 years before baseline (sd)	26.9	(39.4)	22.0	(26.5)	.99	.33	.98 to 1.01
Inpatient or day-treatment in 2 years before baseline	6	8.5%	9	20.5%	2.80	.08	.89 to 8.82
GSI baseline (sd)	1.16	(.50)	1.30	(.55)	1.01	.20	1.00 to 1.01
Psychological variables:							
<u>Extraversion</u>	-.48		-.48		.98	.90	.72 to 1.33
Agreeableness	1.79		2.01		1.11	.53	.80 to 1.54
Conscientiousness	.66		.95		1.24	.19	.90 to 1.70
Emotional stability	-.78		-.97		.85	.35	.60 to 1.20
Autonomy	.46		.10		.86	.25	.66 to 1.12
Overall defensive functioning	3.65		3.62		.62	.46	.18 to 2.20
Positive support	78.5		78.0		.99	.54	.96 to 1.02
Negative support	12.1		12.7		1.05	.40	.94 to 1.17
Discrepancy in support	58.4		60.5		1.01	.40	.99 to 1.04

*adjusted for gender, age and type of aftercare.

b. Follow-up, 24 months*

Baseline	No PT		Having PT		Odds ratio	p	95% CI
n	65		43				
Having paid work	44	67.7%	29	67.4%	.96	.92	.42 to 2.21
No. of sessions of psychotherapy in two years before baseline (sd)	26.5	(42.4)	24.8	(24.3)	1.00	.98	.99 to 1.01
Inpatient or day-treatment in 2 years before baseline	8	12.3%	6	14.0%	1.11	.86	.35 to 3.57
GSI baseline (sd)	1.18	(.46)	1.34	(.61)	1.01	.15	1.00 to 1.02
Psychological variables:							
Extraversion	-.38		-.69		.81	.19	.59 to 1.11
Agreeableness	2.00		1.80		.84	.32	.59 to 1.19
Conscientiousness	.77		.90		1.07	.69	.77 to 1.49
Emotional stability	-.77		-1.01		.84	.36	.59 to 1.22
Autonomy	.21		.50		1.14	.36	.86 to 1.50
Overall defensive functioning	3.66		3.63		.79	.73	.21 to 2.94
Positive support	78.3		78.0		1.00	.93	.97 to 1.03
Negative support	12.5		12.4		.99	.92	.89 to 1.11
Discrepancy in support	60.4		58.9		.99	.51	.96 to 1.02

*adjusted for gender, age and type of aftercare.

Table 5. Spearman's correlations between predictor and outcome variables.

Predictors		Dropouts	Sympt. 12 months	Sympt. 24 months	Full-time work 12 months	Part-time work 12 months	No work 12 months	Full-time work 24 months	Part-time work 24 months	No work 24 months	Psycho- therapy 12 months	Psycho- therapy 24 months
Type of aftercare	r	.04	.34	-.13	.03	.07	.07	.08	-.01	-.12	-.34	.56
	p	.68	.00	.14	.75	.45	.47	.39	.95	.22	.00	.00
Gender	r	.12	-.47	-.29	-.30	.63	.15	-.23	.52	-.15	.86	-.06
	p	.13	.00	.02	.00	.00	.12	.02	.00	.13	.00	.54
Age	r	-.19	.16	.07	.04	-.22	.05	.01	-.07	.02	-.17	.51
	p	.02	.07	.44	.67	.02	.60	.90	.51	.87	.06	.00
Paid work	r	.57	-.03	-.15	.82	-.60	-.87	.76	-.46	-.75	.05	-.01
	p	.00	.77	.10	.00	.00	.00	.00	.00	.00	.55	.96
Session pt in 2 years before baseline.	r	.12	-.13	-.16	.05	.02	-.09	.05	.05	-.16	.11	-.05
	p	.16	.19	.10	.60	.82	.38	.64	.67	.11	.24	.61
Inpatient or day- treatment in 2 years before baseline	r	.04	.02	-.05	-.21	.18	-.22	-.13	.01	.23	.05	.09
	p	.63	.82	.60	.02	.05	.02	.17	.91	.02	.55	.32
Symptom level at	r	-.56	.74	.65	-.06	.03	.05	-.03	.01	.06	.01	.34

baseline	p	.00	.00	.00	.50	.76	.63	.73	.96	.56	.88	.00
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Psychological variables												
Extraversion	r	.16	-.32	-.52	.03	.07	-.04	.02	.13	-.23	.04	-.57
	p	.06	.00	.00	.77	.45	.67	.85	.20	.02	.68	.00
Agreeableness	r	.06	-.14	-.09	-.27	.31	.23	-.23	.27	.02	.22	.10
	p	.45	.11	.30	.00	.00	.01	.02	.01	.86	.01	.25
Conscientiousness	r	.27	-.05	-.03	.00	.05	-.03	.20	-.41	.17	.05	.09
	p	.00	.56	.71	.99	.61	.79	.04	.00	.09	.60	.32
Emotional stability	r	.28	-.27	-.04	-.15	.10	.17	-.23	.13	.25	.02	-.09
	p	.00	.00	.65	.11	.27	.08	.02	.19	.01	.82	.33
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Autonomy	r	-.60	-.02	-.16	.44	-.42	-.40	.45	-.38	-.32	-.16	-.04
	p	.00	.86	.08	.00	.00	.00	.00	.00	.00	.07	.69
Overall defense	r	.02	-.41	-.29	.02	-.02	-.01	-.03	.02	.00	.09	-.29
functioning	p	.78	.00	.00	.81	.84	.93	.77	.85	.97	.32	.00
Positive support	r	-.02	-.19	-.46	.01	.10	-.04	-.11	.33	-.21	.24	-.37
	p	.80	.04	.00	.95	.31	.67	.25	.00	.03	.01	.00
Negative support	r	-.19	.26	.07	.03	-.08	-.03	.13	-.17	.03	-.05	.04
	p	.02	.00	.46	.79	.38	.73	.19	.08	.74	.55	.62
Discrepancy	r	-.06	.33	.17	.05	-.07	-.05	.25	-.40	.11	-.09	.26
	p	.45	.00	.06	.64	.48	.61	.01	.00	.26	.32	.00
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p≤.05: bold.

Discussion

This study is important because, to our knowledge, it is the first field study investigating predictors of dropout and treatment response for a three-month inpatient program followed by aftercare for patients with personality disorders. We found that dropouts can be differentiated from treatment completers by certain variables: they are older and more often male. At baseline they less often have a paid job, have more symptoms, and a higher autonomy score than the completers (although this score is still lower than for the norm group of the Dutch population). The higher autonomy score is remarkable. In the FFPI, a high autonomy score means a person can easily link facts together, wants to form his/her own opinions, and can think quickly. A low autonomy score means: follows the crowd, copies others, does what others do. Possibly the combination of characteristics: self-willed, older men without a job and with a high symptom-level, is not an advantage for having treatment in a highly structured inpatient group-psychotherapy program, where a more co-operative and compliant attitude is desirable.

Treatment history (number of psychotherapy sessions in the two years before baseline, or a more intensive treatment like inpatient or day-treatment) is not predictive for dropping out or for successful treatment. However, a favorable treatment outcome is predicted by several psychological variables: extravert patients had fewer symptoms, worked in full-time jobs more often, and had fewer psychotherapy sessions at follow-up; autonomous patients more often had full-time work, while conscientiousness was negatively correlated with part-time work and patients with more mature defenses showed fewer symptoms at follow-up.

Ogrodniczuk, Piper, Joyce, McCallum and Rosie (2003) found comparable results in an outpatient psychotherapy group for patients with problems around grief: they found that extraversion and conscientiousness predicted success.

The differences between patients with favorable outcome and those with unfavorable outcome are most obvious at the symptom level. Employment at follow-up, in particular on a full-time basis, is predicted by a few variables, the most important of which is having a paid job at baseline. Based on the available predictor variables, it was much more difficult to predict whether patients would still be having psychotherapy in the two years after baseline. Possibly this is the least strong outcome measurement of the three we looked at. From the follow-up data it became clear that some patients sought a very specific further treatment, like relationship- or sex-counseling, job-related counseling, or treatment in the alternative circuit. Moreover, if patients in fact have a level of symptoms comparable to the average population

and have a paid job, one could assume that they are functioning normally, even if they are still having psychotherapeutic treatment.

Although the day-treatment program of Piper et al (1994) appears to be similar to the inpatient program described in this article, we found some different results. The dropouts in Piper's study were younger; in our study they were older compared to the treatment completers. Symptom level at admission was not a predictor for success in Piper's study but in ours it was. Earlier psychiatric treatment had a beneficial effect in Piper's study but in our study it showed a tendency to have a negative effect. These differences may be due to differences in the patient group or in the program. In Piper et al's patient group, fewer patients had an Axis II diagnosis (65% compared to 97% in our patient group), more patients had had a previous hospitalization (40% compared to 9%), and there were more dropouts (29% compared to 16%).

Clinical implications

Successful patients have fewer symptoms at baseline, more often have a paid job, and are more extravert and autonomous. At the start of the inpatient treatment, one could take this into account by adapting the treatment program for those patients who, based on their characteristics at baseline, run the risk of dropping out or being non-successful. A slower pace, with more attention to building up motivation and the therapeutic relationship, and paying extra attention to outpatient variables like employment and social network might help them to benefit more from the program. Further research could examine if this is a helpful premise.

Limitations

The patients in this study were a selected group, well motivated and with a positive indication for inpatient psychotherapy. This means that the results cannot be generalized to all patients with personality disorders. There may be predictive variables or an unknown moderating variable that have not been taken into account.

A dropout is not identical to a non-successful treatment; some dropouts appear to have fewer symptoms at follow-up and to have taken advantage of the treatment (Thunissen, Remans & Trijsburg, 2006). A treatment can also be successful even if a patient is still having psychotherapy or does not have a full-time paid job at follow-up.

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Chapter 6. General discussion, implications and conclusions

Our aim in this study was to compare the results of two different forms of aftercare: a re-integration training aimed at improving functioning in general and at work, and the center's usual aftercare treatment of two booster sessions. Besides we examined the long-term prognosis of short-term inpatient psychotherapy followed by aftercare and predictive qualities of personality disorders and psychological variables.

Our studies addressed the following research questions:

1. Is the re-integration training more effective, in terms of work resumption, absence from work, and impediments at work than the usual aftercare consisting of two one-day booster sessions? (Chapter 2).
2. What is the impact of personality disorders and of type of aftercare on the outcome, measured by symptom levels, employment status, and number of outpatient psychotherapy sessions? (Chapter 3).
3. What is the impact of psychological variables (defensive mechanisms, five-factor personality traits, and social support) and type of aftercare on symptom levels, employment status, and number of outpatient psychotherapy sessions? (Chapter 4).
4. Is there a difference at baseline between successful and non-successful patients and dropouts? (Chapter 5)

General discussion of the results

Effectiveness of re-integration training (Chapter 2)

Contrary to our expectations, the re-integration training did not appear to be more effective than the booster sessions. The percentage of ex-patients with a paid job increased during the booster sessions, and stayed the same during the re-integration training. We concluded that continuity of care (i.e. the same therapists as during the inpatient program) in the booster sessions was probably the main reason for the better results.

One could question whether a re-integration training aimed at finding a job is useful when 70% of patients had a paid job at the start of their aftercare. For some patients, having a paid job was the reason not to participate in the re-integration training. Nevertheless, aftercare still satisfies a need for a majority of the patients after the three-month inpatient program.

Although the attendance at the re-integration training (65%) was lower than for the booster sessions (84%), this percentage is still high compared to attendance at other aftercare

programs (Lash, 1998). Another reason for the lower attendance in the re-integration training could be that about half of the patients from the short-term program lived more than 100 kilometers from the *Viersprong*, which might make it easier for patients to attend two one-day booster sessions than six half-day re-integration training sessions.

However, there are still some unanswered questions:

- Was the lack of difference in effect of both conditions of aftercare due to the similarity between the two programs? Both programs took place in the *Viersprong* in the same patient group as the primary treatment; the social worker who conducted the re-integration training was a staff member of the *Viersprong*.
- Is aftercare, as such, effective? We did not include a control group with no aftercare in our study and cannot be sure about the long-term results of no aftercare.
- Would a re-integration training by the same therapists as the inpatient program be even more effective?
- Would a tailor-made program – a specific training on job-related issues to only those patients without a job or with job-related problems, or paying extra attention to re-integration in social relationships to only those patients with a limited network - be more effective than a general aftercare program?

Predictive power of personality disorder (Chapter 3)

Cluster of personality disorder did not predict symptom levels, absence from work or the number of psychotherapy sessions; in general, the patients showed a significant improvement in all these outcome measures. The effect from the type of aftercare was not predicted by personality disorder.

The course of symptomatic improvement differed in the separate clusters: a slow, gradual improvement without relapse in cluster A, a rapid improvement during the inpatient program followed by a relapse in cluster B, and an intermediate pattern in cluster C and PD NOS. At follow-up, patients from all the clusters were at nearly the same level of symptoms.

What does this result mean?

Cluster of personality disorder did not predict outcome in this study, but could this be partly due to shortcomings in the current classification system? The DSM-IV TR classification system is based on a categorical approach, on a hierarchy of severity and on a classification of pathology mainly on a behavioral level, while psychological mechanisms or neurobiological functions are not taken into account. This leads to several problems:

-a huge overlap between diagnoses: between Axis I and Axis II (e.g. between social phobia and avoidant personality disorder, or between obsessive-compulsive disorder and obsessive-compulsive personality disorder), and between different categories within Axis II (e.g. between dependent and avoidant-, or between histrionic and borderline personality disorder). This leads to a kind of “iatrogenic co-morbidity”.

-the level of disturbance might be due to other variables rather than the personality disorder alone, e.g. strength/weakness of the functions of the ego, interpersonal qualities, or social circumstances.

-a classification system which is based on only behavioral symptoms can be misleading, e.g. the current classification of antisocial personality disorder puts too much emphasis on criminal behavior and disregards interpersonal defects due to lack of empathy.

-recent research into the structure of personality is not taken into account, e.g. into higher order domains of personality: internalization versus externalization, emotional dysregulation versus stability, constraint versus impulsivity, antagonism versus compliance (Widiger, Simonsen, Krueger, Livesley, & Verheul, 2005).

A revised classification system of personality disorders based on recent research into dimensional models, genetic analyses, and neurobiological research could give a better perspective for theory-based research.

Predictive power of other psychological variables (Chapter 4)

Patients who scored higher on conscientiousness and who experienced more positive support showed fewer symptoms at follow-up. It is quite probable that these are the patients who were best able to adapt to the demands of the three-month, highly structured, group-treatment program and to make use of the opportunities it creates. Contrary to our hypothesis, patients with a more mature defensive style showed more symptoms at follow-up. We now think that it is possibly not the level of defense mechanisms that is important but rather the patient's flexibility in defense and the interplay between more mature and more primitive defense mechanisms.

A patient's emotional stability and extraversion were, contrary to our hypothesis, not predictive of outcome. The fact that our group of patients scored low on emotional stability and extraversion compared to the general population could explain why these two variables were not predictive.

We can still ask whether other variables rather than psychological variables are more decisive for outcome, e.g. variables at baseline which were not taken into account, like strength of ego,

motivation, quality of object relations, or social circumstances like family situation and having a social network.

The conclusion from Chapters 3 and 4, that neither the cluster of personality disorder nor the measured psychological variables predicted outcome, could also point to the fact that the selection of patients for this short-term inpatient psychotherapy is very successful. In general, most patients in this study showed a large symptomatic improvement during the inpatient psychotherapy, which remained stable in the 21 months afterwards.

Differences between drop-outs and those who complete treatment, and between successful and non-successful patients (Chapter 5)

Drop-outs were older, more often male, had more symptoms, had paid work less often at baseline, and scored higher on autonomy.

In general, the more successful patients were younger, more often female, had fewer symptoms, and had a paid job more often at baseline. Some of the psychological variables were also predictive: patients with work at follow-up scored higher on autonomy, patients with full-time work scored higher on autonomy and conscientiousness than part-time workers, patients with fewer symptoms at follow-up had a more mature level of defense. Extraversion was related to all three outcome measurements at follow-up: lower symptom level, having paid work, and needing no further psychotherapy.

This study also clearly revealed that patients with a better starting position have better results: those with fewer symptoms at baseline have fewer symptoms at follow-up, and those with a paid job at baseline often have a job at follow-up. The story of the rich getting richer and the poor getting poorer also applies to psychotherapy.

There seems to be some contradiction between the results in chapters 4 and 5. In the structural equation modeling analysis described in Chapter 4, extraversion was not predictive for outcome, and a mature level of defense was correlated to a higher level of symptoms at follow-up. In the univariate analyses in Chapter 5, extraversion and a mature level of defense were both correlated with fewer symptoms at follow-up, and extraversion was correlated with having paid work at follow-up. One explanation for this contradiction lies in the different analysis techniques used in each chapter. In the advanced analysis of Structural Equation Modelling (SEM), multiple predictor and outcome variables can be explored in the most plausible model. This can lead to different results compared to an univariate and multivariate analysis. Moreover, despite the randomisation, more patients in the re-integration training had a relatively low level of defenses.

Of the three outcome measurements (symptom level, having a paid job, and needing no further psychotherapy), the need for further treatment was the hardest to predict. This is possibly the least strong outcome measurement of the three. From the follow-up data, it became clear that some patients sought further treatment for a specific problem, e.g. relationship- or sex-counseling, job-related counseling, or treatment in the alternative health circuit. Moreover, if patients have no symptoms and have a paid job, one could assume that they are functioning normally, even if they are still having psychotherapeutic treatment.

Methodological considerations and limitations

Sample

The majority of the patients in this study who applied for the short-term inpatient program had undergone unsuccessful outpatient psychotherapy in the two years prior to admission. Their problems were too persistent to solve in outpatient psychotherapy or the patients showed too much resistance to change. In contrast to patients in long-term inpatient programs (duration around 12 months) they are older (in their thirties, while patients in the long-term programs often are in their twenties) and they often finished a middle or higher education, qualified for a job and worked for several years before coming into treatment. They often suffered from emotional neglect in their youth, or were traumatized in different ways (death of one of their parents, physical, sexual or emotional abuse, severe bullying at school, a serious, chronic disease in the patient or in the family). Patients in the short-term inpatient program are able to formulate a focus in their problems, which can lead to a treatment contract to fulfill in three months. They are well motivated, capable of functioning in a group and of thinking psychologically about themselves. They are admitted after participating in a selection procedure in which only 50% of the applicants are accepted. The treatment program is a specialised treatment with transactional analysis as method of psychotherapy, for a selected group of patients. It is possible that our findings cannot be generalized to the wider population of patients with a personality disorder.

Design of the study

The study was a cohort study followed by a randomized clinical trial. Despite the randomization there were more patients in the re-integration training with a less mature level

of defensive functioning and a lower level of positive social support. This may have led to the higher symptom level at follow-up in the re-integration group.

There were two main differences between the re-integration training and the booster sessions:

(1) The structure of the program: six half-day sessions focused on improving general and job-related functioning in the re-integration training and two whole-day sessions with the same structure and focus as the inpatient program in the booster sessions.

(2) The therapist: the re-integration training was led by trainers who were new to the patients, whereas the booster sessions were led by the same therapists as the inpatient program.

We concluded that unfamiliarity with the trainers was the main reason for the higher attrition of patients in the re-integration training, and this may also be a reason why the re-integration training was not found to be more effective than the booster sessions, contrary to our hypothesis. If the therapists from the inpatient program had also performed the re-integration training, the only difference between the two types of aftercare would have been the structure of the program; conclusions about the differences identified would have been less ambiguous. On the other hand: both aftercare programs were coordinated from and took place in the *Viersprong*, in the same group of patients as the inpatient program. In this respect it might also have been possible that both types of aftercare were too similar to detect significant differences in outcome.

Another limitation in the study design was that we had no control group without aftercare. This decision was made for ethical reasons, but it means we are unable to show whether some aftercare is better than no aftercare.

Other patient characteristics that may have influenced the outcome, e.g., motivation, psychological mindedness, and quality of object relations, were not taken into account. We did not investigate variables like treatment adherence, composition of the patient groups, and matching between patient characteristics and setting characteristics. The outcome variable paid work or number of hours worked might have been not the best choice; maybe satisfaction with the job or the salary was a better variable. The results showed that the difference in number of people with a job between the re-integration training and the booster sessions was caused by the fact that more people in the re-integration training quit their job during the 21 months after the inpatient program. We did not investigate whether dissatisfaction with their job might be one of the reasons.

The fact that the type of aftercare had no differentiating effect for patients with certain personality disorders could be due to the limited number of patients (64 in each type of aftercare).

Drop-outs

The percentage of dropouts during the inpatient program, 24 of 152 patients (15.8%), is comparable to dropout percentages in other psychotherapy clinics (Blount, King & Menzies, 2002; Chiesa, Hrahorad, & Longo, 2000). The average duration of treatment for the dropouts was 32 days (range 3-70 days).

Attrition in the re-integration training was significantly higher than in the booster sessions which may be due to patients' preferences rather than a treatment effect.

Data were collected from 128 (100%) patients during the inpatient program, from 122 (95.3%) patients at the start of aftercare, from 115 (89.8%) patients at the end of aftercare, and from 108 (84.4%) patients at follow-up two years after baseline. These high percentages make the data reliable. Data were collected from the same number of participants for the re-integration training and for the booster sessions.

Measurement instruments

Most measurements were self-reports and not observer-rated, which might limit the validity of the results (positive bias by self-rating). Axis II personality disorders were assessed with a semi-structured interview and the interviewers were psychologists and medical doctors in training for becoming a psychiatrist. They all had extensive experience in taking case histories and in diagnostics. Forty-three out of 128 interviews (33.6%) were videotaped, and one or two independent raters estimated the reliability (kappa varied between .82 and 1.00). One limitation was the possible measurement errors in the assessment instruments. The paranoid personality disorder, in particular, may have been over-rated.

Implications

Statistical model development

Recent developments in statistics make it possible to examine patterns of relationships between different variables by methods like Structural Equation Modelling (SEM). Single client variables do not operate alone; constellations of patterns of salient variables will be likely to show the greatest impact on treatment process and outcome. To use SEM in a fruitful way, technical and empirical constructs are needed which are sensitive for measuring change, constructs on therapist-patient matching, on motivation for this kind of therapy, on ego strength, attachment, psychological mindedness and social support. A more sensitive

operationalization or analysis of concepts, like personality disorder, is needed in order to improve their predictive qualities. A dimensional diagnostic system of personality disorders will substantially improve clinical utility (Verheul, 2005). The phenomenon of omitted variables and possible unreliability in the assessment must also be taken into account. And lastly, as soon as the therapy begins, the client variables will be operating in the dynamic and changing context of therapist variables and behavior. The therapist's responsiveness to client variables and behavior will determine the statistical relationship of the client variable to outcome (Clarkin & Levy, 2004).

Different types of modeling can be used in analyzing the correlation structure of the variables:

- disjunct modeling: one variable is decisive;
- conjunct modeling: for this to be successful several variables are needed;
- linear or non-linear compensatory modeling: one variable can compensate for another.

In the future, techniques like SEM will be able to stimulate theory development in a fundamental way. Hypotheses will be built on theoretical or clinical grounds, and models can then be constructed to test them.

Clinical implications

One of the reasons for undertaking this research were the results of a nation-wide Dutch study showing that despite symptomatic improvement, only 30% of the patients were in fact working, and 88% were still receiving some form of psychotherapy one year after the treatment (SWOPG, 2002). However, our research showed that, at baseline, 71% of patients already had a paid job, and that this number increased to 80% at follow-up after two years. The main reason for the huge difference between SWOPG and our results lies, in our opinion, in the measuring instruments used: the SWOPG research used a self-report, which made no distinction between not having a job and being absent due to illness. In our study, we used the HLQ (Health and Labor Questionnaire), which is meticulous in distinguishing between having a paid job or not, and between absence due to illness or for other reasons. The more accurate figures from the HLQ showed that a much larger percentage of patients than expected did in fact have a job at the start of their inpatient psychotherapy, and that this percentage had increased two years later. Besides, social conditions and the ideology surrounding the importance of having a paid job may have changed between 1997-2000 (the last STEP data) and 1999-2003 (this study).

This study shows that patients with personality disorders can change. Two years after baseline, 59% of patients functioned at a normal level regarding symptom levels, 80% had a paid job, and 60% no longer had psychotherapy. The largest part of the symptomatic change took place during the inpatient program, which means that there was a good match between the program and the patient group. For a selected group of patients with personality disorders, a short, intensive inpatient psychotherapy program such as the one described in this thesis may have advantages above much longer outpatient treatment. Short-term inpatient treatment may be more cost effective than outpatient treatment, especially if all the costs due to absence from work and other medical costs are taken into account.

Recent Dutch political measures have assigned funding for only a limited number of outpatient psychotherapy sessions to patients with personality disorders, so that it may now be preferable for such patients to undergo short-term inpatient treatment instead of limited outpatient treatment.

Concluding remarks

The study described in this thesis aimed to contribute to understanding the long-term effects of aftercare in patients with personality disorders after a three-month inpatient psychotherapy program. If this study is replicated, aftercare aimed at re-integration with the same therapists as the inpatient treatment or aftercare matched to the needs of individual patients could be studied.

In our research it became clear that symptomatic recovery in patients shows different patterns: patients with a cluster A personality disorder recover more slowly than cluster B patients, but they reach the same symptomatic level two years after baseline. These patterns of recovery could be studied more thoroughly by survival analysis, which could also elucidate when relapses take place and which patients are likely to relapse. Whether the non-successful patients would benefit more from a longer period of treatment, from a different psychotherapy approach or from a more extensive aftercare program after the inpatient program is not clear and could form the subject of another study.

A comparison of this three-month inpatient program with a longer term outpatient program could determine if one of the two modalities is to be preferred for any particular group of patients. The cost-effectiveness of the two modalities could also be examined. This kind of research could make it easier to predict the intensity of psychotherapy that a patient needs, working from the idea of matched care, i.e. an adequate intervention for each patient, instead of stepped care for all.

We recommend that more research should be conducted into therapist variables: the therapist's relational skills, facilitative attitudes, wisdom based on experience, and related non-technical skills that produce a positive change in patients. Future research should focus not only on the important factors common to all therapies, but also on the specific effects of particular interventions for certain types of patients.

Most research in psychotherapy looks at short-term outpatient psychotherapy, often with special, homogeneous groups of patients. As long as the research does not reflect the daily practice of most therapists (with heterogeneous groups of patients, often with co-morbidity), most of the results cannot be transferred into useful techniques or daily practice. This means that the gold standard of a Randomized Clinical Trial is not always suitable for a research situation. Moreover, the research often only covers a short period, like six months, with no data from a longer follow-up period.

Ultimately, the aim of all such research is to sharpen our ideas about which types of therapy work best for a certain type of patient.

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Summary

Introduction

Short-term inpatient psychotherapy is a treatment that has been specially developed for patients with personality disorders. These patients have already suffered for years from dysfunctional patterns of thinking, affect, interpersonal relationships and impulse control, which have a negative influence on many areas of their life and cause considerable problems for them and their surroundings. To be effective, a psychotherapeutic treatment must be intensive and often needs to continue for a long period (Perry et al, 1999). In the Netherlands short-term intensive programs have been developed for such patients, both as inpatients and outpatients. Earlier studies (SWOPG 2002, 1999, 1997) showed that these programs resulted in a significant decrease in symptoms and a reduction of use of mental health services. Nevertheless, one year after the end of the treatment, nearly half of the patients were still receiving professional mental health care and a majority of the patients was still not working. These findings were the reason to set up this research project on the three-month inpatient psychotherapeutic program KKP (*Kortdurende Klinische Psychotherapie*, Short-term Inpatient Psychotherapy) of the *Viersprong*, Center for Psychotherapy in Halsteren, the Netherlands.

We hypothesized that a specific aftercare program would improve the functional recovery of such patients. This program, the so-called re-integration training, was aimed at resuming work and integrating the results of the inpatient psychotherapy into social relations outside the hospital. We compared the re-integration training with the aftercare as usual, two one-day booster sessions in the same format and with the same staff as the three-month inpatient program. Both aftercare programs were provided between three and nine months after the end of the inpatient program and were compared in a randomized clinical trial. Then we explored whether certain types of patients had a better treatment result at follow-up.

Chapter 1. Background of the study

In chapter 1 we describe the history, diagnosis, treatment and follow-up of one of the patients in the study group by way of a comprehensive case history. The patient serves as a model for the group of patients who can be treated with short-term inpatient psychotherapy. These patients often suffer from a depressive- or an anxiety disorder, and nearly all of them also suffer from a personality disorder. The personality disorders most often lie in cluster C (avoidant, obsessive-compulsive and dependent personality disorder), or in Not Otherwise

Specified or in cluster B (mostly a borderline or narcissistic personality disorder). In most cases, the patients had a comprehensive history of earlier treatments with insufficient results. Often they were successful in one area of functioning: they had had an intimate relationship for a considerable period, or had finished an education, or had a stable living- or work situation. In the case history, it becomes clear that treatment is a dynamic process, with both progress and setbacks in the years after successful psychotherapy treatment. It takes a large effort to translate symptomatic change into changes in social relationships and work, and sometimes relapses occur.

One of the characteristics of short-term, insight-oriented psychotherapy is the focus on a core conflict in the patient's problems. The psychotherapist has an active, supportive and directive attitude, and creates corrective emotional experiences where the patient can experience new feelings and thoughts, contrary to their old patterns. Central themes include separation, letting go of old patterns of relationships, and mourning in the present for past losses. In the three-month program at the *Viersprong*, the method and language of psychotherapy is transactional analysis, a model in which insight-oriented elements from psychoanalysis are combined with principles of cognitive and group therapy. Transactional analysis describes intrapsychic and interpersonal processes and is aimed at structural changes and social control. The inpatient program combines group psychotherapy, movement- and art therapy, and sociotherapy in a structured therapeutic milieu.

In the natural course of a personality disorder, relapse is a common phenomenon. Recovery is not a final situation but the result of a patient's continuous attempts to cope with the internal and external factors that could provoke a relapse or recurrence. Consolidation of treatment effects by aftercare can prevent relapse and stimulate re-integration into society. A core concept in aftercare is *self-efficacy*, a belief in one's own power and skills.

In a pilot study of 14 ex-patients, four years after their participation in the three-month inpatient program at the *Viersprong*, we discovered that all of them reported one or more periods of relapse after the program, often in the first year and nearly always after the occurrence of a life event. Nine of the ex-patients wished the hospital had provided some kind of structured aftercare.

The findings from the pilot study and from the earlier SWOPG studies stimulated us to develop a new aftercare program, the effects of which are described in this thesis.

Research questions

The main research questions of the study were:

1. Is the re-integration training more (cost-)effective, in terms of work resumption, absence from work, and impediments at work than the aftercare as usual, consisting of two one-day booster sessions (chapter 2)?
2. What is the impact of personality disorders and of type of aftercare on the outcome, measured by symptom levels, number of hours of work, absence from work, number of outpatient psychotherapy sessions, and living situation (chapter 3)?
3. What is the impact of psychological variables: defensive mechanisms, five-factor personality traits, and social support on symptom levels, number of hours worked, and number of outpatient psychotherapy sessions (chapter 4)?
4. Is there a difference between dropouts and the successful and non-successful patients at baseline (chapter 5)?

Chapter 2. The comparison of both methods of aftercare

Our hypothesis, based on the literature and available research, was that the re-integration training would be more effective than the booster sessions. The literature shows that the consolidation of change is caused by a different mechanism than the initial change process, like stimulating self-efficacy and coping, and the involvement of the social network in the change process. The re-integration training was based on these assumptions.

The re-integration training consisted of six training sessions of three hours each, making use of a manual and provided on a monthly basis between the third and ninth month after the end of the inpatient program. The training aimed at problem solving and was delivered by trainers who were new to the patients. An experienced family therapist delivered sessions one, two and six: the main goal of these sessions was the integration of changes, achieved in the inpatient program, in social relations outside the hospital. The topics addressed were how to handle the situation of being at home again, changes in relationships after therapy, financial issues and housing problems. Patients were invited to bring a 'significant other' to two of the three sessions. An experienced job re-integration expert delivered sessions three to five. The topics addressed were career development based on the individual profile of interest, skills and qualities of each patient, how to find and keep a job, personal effectiveness at work, assertiveness, self-confidence, and how to handle authority and criticism.

The booster sessions consisted of two one-day sessions, three and nine months after discharge, with the same therapists as during primary treatment (two sociotherapists, one art- or psychomotor therapist, and a psychiatrist or a psychotherapist). Treatment ingredients were

the same as those during the primary treatment, and were linked to the treatment contract formulated during the primary treatment.

Between May 1999 and December 2001, 128 patients took part in the study; 64 were randomized in the re-integration training and 64 in the booster sessions.

To our surprise, many more patients had work at the start of the inpatient program than we had expected. At follow-up this number had grown in the booster sessions and stayed the same in the re-integration training. There were no differences between the two conditions in the other outcome measures like symptomatic improvement, absence from or impediments at work, and reduction in the number of sessions of outpatient psychotherapy needed. The attendance in the booster sessions was better than in the re-integration training. The re-integration training was more expensive to provide than the booster sessions.

In summary, we found two unexpected results: contrary to our hypothesis, we found the re-integration training had no better effect on work resumption than the booster sessions.

Moreover, many more patients than expected already had work at baseline. An explanation for this last result might be the different questionnaires used in our research and in previous studies, and possibly also changes in society (more jobs available and a more work-oriented ideology). Our main conclusion is that continuity of treatment, that is aftercare by the same therapists and with the same content as the primary treatment, deserves preference above a re-integration training with new trainers. For a specific group of patients, for example, those without a job, this aftercare could possibly be supplemented with extra training aimed at resuming work.

Chapter 3. The influence of personality disorders on the treatment result

Next we explored the question of which patients have a better result from which treatment. Can we distinguish psychiatric or psychological variables that are predictive for treatment results? And are there differences between the two formats of aftercare in this respect? In chapter 3 we explore the influence of the personality disorders, and in chapter 4 we explore the influence of the psychological variables. Outcome measurements were symptom level, number of hours of paid work, and the number of sessions of psychotherapy needed after the inpatient program.

In Chapter 3 we describe how nearly all the patients in our study suffered from a personality disorder, mainly cluster C (avoidant, obsessive-compulsive and dependent), but also cluster B (mainly borderline and narcissistic), cluster A (mainly paranoid) or a mixed personality disorder (Not Otherwise Specified). Only three patients did not have a personality disorder.

One remarkable finding was that at the start of the primary treatment and at follow-up two years later, we found no difference between the symptom levels of patients from the different clusters. But the patterns of change differed between the clusters: a slow and gradual decrease in symptoms in cluster A, a fast decrease during the inpatient treatment and a relapse afterwards in cluster B, and an intermediate pattern in cluster C and PD NOS. The number of hours during which patients worked increased in cluster A and B patients, but stayed the same in cluster C and PD NOS patients. In all patients the number of sessions of psychotherapy decreased in the 21 months after the inpatient treatment compared with the two years before the primary treatment. The effect of the type of aftercare was not predicted by personality disorder.

The reason why patients with a cluster A or B personality disorder had no worse result compared to patients with a cluster C or PD NOS at follow-up might be due to the selection of patients before the inpatient treatment. All patients selected for this method of short-term inpatient psychotherapy are able to formulate a focus in their problems, have sufficient ego strength and motivation, and one or two problem-free areas in their life like a job, a finished education, a relationship or a stable home. These aspects might well be more important for the effect of inpatient psychotherapy followed by aftercare than the DSM-IV classification. This result fits in with the current discussion about replacing the categorical DSM-IV system with a more integrative dimensional DSM-V system in which four or five dimensions of (mal)adaptive personality functioning are integrated into a hierarchical model.

Chapter 4. The influence of psychological variables on the treatment result

In Chapter 4 we discuss the impact of psychological variables on the effect of the inpatient treatment followed by aftercare. The following psychological variables were explored: the pre-treatment level of defensive mechanisms (from mature to primitive), five-factor personality traits: extraversion, agreeableness, conscientiousness, emotional stability and autonomy, and social support on outcome. We hypothesized that patients with a mature level of defensive functioning, and a high score on emotional stability, conscientiousness, extraversion, and social support would have a favorable treatment outcome. We analyzed the structural relationships between the different variables using an advanced method of analysis, Structural Equation Modelling (SEM). As expected, patients who scored higher on conscientiousness and who experienced more positive support showed fewer symptoms at follow-up. Contrary to our hypothesis, emotional stability and extraversion had no influence, and patients with a more mature defensive style showed more symptoms at follow-up. Our

explanation of this last unexpected finding is that the level of defense mechanisms is possibly not as important as flexibility in defense and the interplay between more mature and more primitive defense mechanisms.

In the other two outcome measurements, work and number of sessions of psychotherapy needed, we found only an indirect effect: patients with fewer symptoms worked more hours and had fewer sessions of psychotherapy at follow-up.

Despite the randomization, there were more patients with a more primitive level of defense and with less positive support in the re-integration training than in the booster sessions. This might also have influenced the results.

Chapter 5. Differences between dropouts, successful and non-successful patients

Finally we explored whether a successful course of treatment can be predicted at baseline. We looked at which patients became dropouts and which patients were successful (have few symptoms, have a paid job and are no longer in psychotherapy at follow-up). Can this be predicted at baseline?

First we explored the differences between the 24 dropouts during the inpatient program and the 128 patients who finished the program. Drop-outs were older, more often male, had more symptoms and less often had paid work at baseline; they also scored higher on autonomy. Possibly this combination, being an older, more self-willed man without work and with a high symptom level, is not an advantage in a highly structured inpatient psychotherapy program where a co-operative attitude is desirable.

Next we explored which patients were successful for each outcome measurement –symptom level, work, and further psychotherapy. In general, the more successful patients were younger, more often female, had fewer symptoms, and more often had a paid job at baseline. Some psychological variables were predictive: patients with a paid job at follow-up scored higher on autonomy, full-time working patients scored higher on autonomy and on conscientiousness than part-time working patients; patients with fewer symptoms at follow-up had a more mature level of defense. More extravert patients had fewer symptoms, more often had a paid job and were less often still in psychotherapy at follow-up. Symptom level was predicted by the largest number of variables; further psychotherapy was the hardest to predict. Follow-up data showed that patients who were still in psychotherapy were often having a specific form of psychotherapy: marital or sex counseling, job-related counseling, or alternative therapies. In the inpatient program, special attention can be given to those patients who run the risk of becoming a dropout or of being unsuccessful in the treatment. Adapting the program at the

beginning, with more attention to motivation and therapeutic relationship, and at the end, with more concern for the work and social situation of the patients could prove effective. These aspects could also be part of an aftercare program.

Chapter 6. General discussion, implications and conclusions

With respect to the comparison of the two methods of aftercare, it remains unclear how patients would cope without any form of aftercare. Neither is it clear how effective an aftercare with elements of the re-integration training given by the same therapists who gave the inpatient program would be. The effectiveness of a tailor-made aftercare –a specific training in finding a job and dealing with work problems– for only those patients without a job or with job-related problems, or extra attention to re-integration in social relationships for only those patients with a limited network, was also not examined.

With respect to the predictive power of a personality disorder and other psychological variables, one could question whether other variables not-examined might be predictive, e.g. ego strength, motivation, psychological mindedness, interpersonal qualities or social circumstances.

Of the three outcome measurements we looked at, symptom level appeared to be the most powerful predictor; further psychotherapy was hardest to predict. The follow-up data showed that patients often sought specific treatment like marital counseling.

There seems to be some contradiction between the results in chapters 4 and 5. In the Structural Equation Modelling analysis described in chapter 4, extraversion was not predictive for outcome, and a mature level of defense was correlated to a higher level of symptoms at follow-up. In the univariate analyses in chapter 5, extraversion and a mature level of defense were both correlated with fewer symptoms at follow-up, and extraversion was correlated with having paid work at follow-up. Our explanation of this result lies in the different analysis techniques used in each chapter and possibly the fact that, despite the randomization, more patients in the re-integration training had a relatively low level of defense.

The patients in this study were a selected group: patients with personality disorders who had often undergone unsuccessful outpatient psychotherapy prior to the inpatient program. Their problems were persistent; on the other hand, the patients were well motivated and capable of taking part in an intensive inpatient psychotherapeutic program. They were admitted after participating in a selection procedure in which only 50% of the applicants were accepted. Most patients had a middle or higher level of education; the majority had paid work. This study shows that the treatment program was successful for this selected group of patients. It is

possible that our findings cannot be generalized to the wider population of patients with a personality disorder.

Despite the randomization there were more patients in the re-integration training with a less mature level of defensive functioning and a lower level of positive social support. The percentage of dropouts during the inpatient program, 24 of 152 patients, is comparable to dropout percentages in other psychotherapeutic clinics.

Data were collected from 128 (100%) patients during the inpatient program, from 122 (95.3%) patients at the start of aftercare, from 115 (89.8%) patients at the end of aftercare, and from 108 (84.4%) patients at follow-up two years after baseline. These high percentages mean our data are reliable. Data were collected from the same number of participants for the re-integration training and for the booster sessions.

Most measurements were self-reports. Axis II personality disorders were assessed with a semi-structured interview, although the paranoid personality disorder (14 of 128 patients) in particular, may have been over-rated.

In chapter 5 Structural Equation Modelling (SEM) was used as the method of analysis. In the future, techniques like SEM will probably be used more often, and such methods can stimulate the development of theories in a fundamental way.

This study shows that patients with personality disorders can change. Two years after baseline, 59% of patients were functioning at a normal level with regard to symptoms, 80% had a paid job, and 60% no longer had psychotherapy. The largest part of the symptomatic change took place during the inpatient program, which means that there was a good match between the program and the patient group. Whether the non-successful patients would benefit more from a longer period of treatment, from a different form of psychotherapy or from a more extensive aftercare program after the inpatient program is not clear and could form the subject of a new study.

Recent Dutch political measures have assigned funding for only a limited number of outpatient psychotherapy sessions to patients with personality disorders, so that it may be preferable for such patients to undergo short-term inpatient treatment instead of limited outpatient treatment.

Further research could be aimed at a comparison of short-term inpatient psychotherapy with long-term outpatient psychotherapy, the influence of therapist variables, and the effectiveness of particular interventions for certain types of patients. A randomized clinical trial may not always be suitable for this kind of research as the patient group or the therapy method may not reflect the clinical practice.

Ultimately, the aim of all such research is to sharpen our ideas about which types of therapy work best for a certain type of patient.

Samenvatting.

Inleiding

Kortdurende klinische psychotherapie is een methode die speciaal ontwikkeld is voor de behandeling van patiënten met persoonlijkheidsstoornissen. Deze patiënten hebben al jarenlang last van disfunctionele patronen van denken, affect, interpersoonlijke relaties en impuls controle wat veel terreinen van hun leven negatief beïnvloedt en voor aanzienlijke problemen zorgt voor henzelf en hun omgeving. Om effectief te zijn moet een behandeling vaak intensief en ook langdurig zijn (Perry et al, 1999). In Nederland zijn echter ook intensieve kortdurende programma's ontwikkeld voor deze patiënten, klinisch en dagklinisch. Uit onderzoek (SWOPG 2002, 1999 en 1997) blijkt dat deze programma's leiden tot een significante reductie in symptomen en gebruik van psychotherapeutische voorzieningen. Toch was nog ongeveer de helft van de patiënten een jaar na het einde van de behandeling in psychotherapie, en was de meerderheid van de patiënten nog steeds niet aan het werk. Dit gegeven was de aanleiding voor deze studie, opgezet in de afdeling voor Kortdurende Klinische Psychotherapie (KKP) van De *Viersprong*, Centrum voor Psychotherapie in Halsteren. De hypothese van het onderzoek was, dat een specifieke nabehandeling het functionele herstel van de patiënten zou verbeteren. Deze behandeling, de zogenaamde reïntegratie training, was gericht op werkhervatting en het toepassen van de resultaten van de klinische behandeling in de sociale relaties buiten de kliniek. We vergeleken de reïntegratie training met de gebruikelijke nabehandeling, de booster sessies, twee terugkomdagen met eenzelfde programma als de klinische behandeling. Beide nabehandelingen vergeleken we met elkaar in een Randomised Clinical Trial (een studie waarbij door middel van loting patiënten aan hetzij de ene, hetzij de andere behandelconditie worden toegewezen). Vervolgens gingen we na of bepaalde typen patiënten een beter behandelresultaat hadden bij follow-up.

Hoofdstuk 1. Achtergrond van het onderzoek.

In hoofdstuk 1 wordt aan de hand van een uitgebreide casus een beeld geschetst van de problematiek, de behandeling en de follow-up van een patiënt die model staat voor de groep patiënten die met kortdurende klinische psychotherapie behandeld kunnen worden. Deze patiënten lijden vaak aan een depressieve - of een angststoornis, en vrijwel alle patiënten voldoen aan de criteria van een persoonlijkheidsstoornis, meestal cluster C (vermijdende, obsessief-compulsieve of afhankelijke persoonlijkheidsstoornis), een persoonlijkheidsstoornis

NAO (Niet Anders Omschreven, een combinatie van trekken uit de verschillende persoonlijkheidsstoornissen) of cluster B (vooral borderline of narcistische persoonlijkheidsstoornis). Meestal hebben ze al een uitgebreide behandelvoorgeschiedenis met onvoldoende resultaat. Vaak hebben ze wel op één terrein van functioneren succes geboekt; ze hebben bijvoorbeeld al geruime tijd een relatie, hebben een opleiding afgerond of hebben een stabiele woon- of werksituatie. In de casus wordt duidelijk dat de klinische behandeling gekenmerkt wordt door periodes van vooruitgang, gevolgd door weerstand en terugval. Ook in de tijd na de klinische behandeling kost het inspanning om de symptomatische verbetering om te zetten in veranderingen op het gebied van sociale relaties en werk, en is er soms sprake van terugval.

Kenmerkend voor kortdurende psychotherapie is het vaststellen van een focus, een kernpunt in de problematiek van de patiënt. De therapeut is hierbij actief, ondersteunend en directief en creëert correctieve emotionele ervaringen waarbij de patiënt aan den lijve nieuwe ervaringen opdoet die haaks staan op de oude patronen. Vaak is een centraal thema afscheid en rouw. Als behandelmethode is in de KKP-afdeling van de Viersprong gekozen voor de transactionele analyse, een model waarin de inzichtgevende psychoanalytische benadering wordt gecombineerd met groepsdynamische principes. De transactionele analyse beschrijft zowel intrapsychisch als interpersoonlijk functioneren en is gericht op structurele verandering en sociale controle. In alle behandelvormen van de KKP (groepspsychotherapie, sociotherapie en verschillende non-verbale therapievormen) worden taal en methode van de transactionele analyse gebruikt.

In het natuurlijk beloop van persoonlijkheidsstoornissen komt terugval vaak voor. Herstel of genezing is geen eindstadium, maar het resultaat van voortdurende pogingen van de patiënt om het hoofd te bieden aan interne en externe factoren die terugval kunnen uitlokken. Het consolideren van het behandelresultaat via nabehandeling kan terugval voorkomen en integratie in de maatschappij bevorderen. Een kernconcept bij nabehandeling is “*self-efficacy*”, het geloof in eigen kracht en vaardigheden.

In een pilotstudie onder 14 ex-patiënten, vier jaar na opname in de KKP-afdeling van de Viersprong, ontdekten we dat alle patiënten een of meer periodes van terugval meemaakten, vaak in het eerste jaar na opname en bijna altijd na een life-event. Negen ex-patiënten hadden gewild dat de kliniek een vorm van nabehandeling had geboden.

De uitkomsten van deze pilotstudie en van de eerder vermelde SWOPG-onderzoeken waren de aanleiding tot het ontwikkelen van een nabehandeling waarvan de resultaten beschreven staan in dit proefschrift.

Onderzoeksvragen

In dit proefschrift worden de volgende onderzoeksvragen behandeld:

1. Is de reïntegratie training effectiever (wat betreft werkhervatting, ziekteverzuim en belemmeringen in het werk en kosten) dan de booster sessies? (hoofdstuk 2).
2. Wat is de invloed van het soort persoonlijkheidsstoornis en type nabehandeling op symptomatische verbetering, werksituatie en verdere psychotherapie? (hoofdstuk 3).
3. Wat is de invloed van psychologische variabelen (afweer, persoonlijkheidsstreken en sociale steun) en type nabehandeling op symptomatische verbetering, werksituatie en verdere psychotherapie? (hoofdstuk 4).
4. Is er een verschil tussen wel- en niet-succesvolle patiënten en drop-outs bij de start van de behandeling (at baseline)? (hoofdstuk 5).

Hoofdstuk 2. De vergelijking van de twee vormen van nabehandeling

Onze hypothese, op basis van de literatuur en de uitkomsten uit het beschikbare onderzoek, was dat de reïntegratie training effectiever zou zijn dan de booster sessies. Uit de literatuur blijkt dat bij het consolideren van verandering andere mechanismen betrokken zijn dan bij het initiële veranderingsproces, zoals het vergroten van eigen kracht en coping en het betrekken van de sociale omgeving bij de veranderingen. Hierop was de reïntegratie training gebaseerd. De reïntegratie training bestond uit zes maandelijks sessies van drie uur, tussen drie en negen maanden na het klinische programma. De training was gericht op het vergroten van het probleem oplossend vermogen en werd gegeven door trainers die nieuw waren voor de patiënten. Een ervaren systeemtherapeut begeleidde sessie 1, 2 en 6. Het voornaamste doel van deze sessies was het in de praktijk brengen van de veranderingen tijdens de opname in het leven buiten de kliniek. Onderwerpen waren het omgaan met het weer thuis zijn, met veranderingen in relaties na de therapie, financiën, vrije tijd en wonen. Patiënten konden twee keer een ‘belangrijke ander’ meenemen. Sessie 3, 4 en 5 werden begeleid door een ervaren trainer op het gebied van arbeidsreïntegratie. Onderwerpen waren carrièreontwikkeling op basis van ieders eigen interesses, vaardigheden en kwaliteiten, werk vinden en houden, persoonlijke effectiviteit op het werk, assertiviteit, zelfvertrouwen, omgaan met autoriteit en kritiek.

De booster sessies bestonden uit twee dagen, drie en negen maanden na het einde van het klinische programma, met dezelfde therapeuten als in de kliniek (twee sociotherapeuten, een creatief- of psychomotore therapeut en een psychiater of een psychotherapeut). De

behandeling bestond uit dezelfde onderdelen als de klinische behandeling waarbij steeds een koppeling werd gemaakt met het behandelcontract uit de klinische behandeling.

In de periode mei 1999 tot december 2001 stroomden 128 patiënten in in het onderzoek; 64 van hen werden gerandomiseerd in de reïntegratie training en 64 in de booster sessies.

Tot onze verrassing bleek een veel grotere groep patiënten dan verwacht, al werk te hebben voorafgaand aan de behandeling. Bij follow-up, twee jaar later, was dit aantal gestegen in de booster sessies en gelijk gebleven in de reïntegratie training. In de andere uitkomstmaten, ziekteverzuim, beperkingen in het werk, symptomatische verbetering en voortgezette psychotherapeutische behandeling, was er geen verschil tussen reïntegratie training en booster sessies. De deelname door patiënten aan de booster sessies was hoger dan aan de reïntegratie training. De reïntegratie training was duurder dan de booster sessies.

Samengevat leverde het onderzoek dus twee onverwachte uitkomsten: tegengesteld aan onze hypothese had de reïntegratie training geen beter effect op werkhervatting dan de booster sessies. Bovendien bleken veel meer patiënten dan verwacht, werk te hebben bij opname. Dit is wellicht deels te verklaren uit de verschillende vragenlijsten die gebruikt werden, en wellicht ook door een veranderde maatschappelijke situatie: een grotere beschikbaarheid van banen en een meer op werk gerichte ideologie. Onze conclusie is dat continuïteit van behandeling, dat wil zeggen een nabehandeling door dezelfde therapeuten en met dezelfde inhoud als de primaire behandeling, de voorkeur verdient boven een reïntegratie training met nieuwe trainers. Wellicht zou voor een specifieke groep patiënten, bijvoorbeeld diegenen zonder werk, deze nabehandeling aangevuld kunnen worden met een extra training gericht op werkhervatting.

Hoofdstuk 3. De invloed van persoonlijkheidsstoornissen op het behandelresultaat.

Vervolgens vroegen wij ons af: welke patiënten hebben meer baat bij welke behandeling? Zijn er psychiatrische of psychologische variabelen waarin patiënten zich onderscheiden wat betreft therapie-effect? En is er in dit opzicht verschil tussen beide vormen van nabehandeling? In hoofdstuk 3 wordt besproken in hoeverre de persoonlijkheidsstoornis van patiënten van invloed is op het therapie-effect; in hoofdstuk 4 wordt nagegaan of psychologische variabelen een differentiërend effect hebben. Als uitkomstmaten werden het symptoomniveau, het aantal uren dat men werkte en het aantal sessies psychotherapie in de periode na de klinische behandeling, genomen.

In hoofdstuk 3 wordt beschreven dat vrijwel alle patiënten uit de studie bleken te lijden aan een persoonlijkheidsstoornis, voornamelijk cluster C (vermijdend, obsessief-compulsief of

afhankelijk), maar daarnaast ook cluster B (voornamelijk borderline en narcistisch), cluster A (voornamelijk paranoïde) of een gemengde persoonlijkheidsstoornis. Slechts 3 patiënten hadden geen persoonlijkheidsstoornis.

Opmerkelijk was dat er zowel bij opname als bij follow-up, 2 jaar later, geen verschil was tussen het symptoomniveau van patiënten uit de verschillende clusters. Echter, het patroon van verbetering bleek te verschillen bij de clusters: een langzame, geleidelijke daling in symptomen bij cluster A, een snelle daling tijdens de klinische fase met daarna een terugval bij cluster B en een patroon tussen deze beide in bij cluster C en de gemengde persoonlijkheidsstoornis.

In het aantal uren dat patiënten werken was er een duidelijke stijging bij cluster B en cluster A patiënten, terwijl de cluster C en patiënten met een gemengde persoonlijkheidsstoornis op ongeveer hetzelfde niveau bleven. Bij alle patiënten daalde het aantal sessies psychotherapie tussen de periode twee jaar voor opname en de 21 maanden na de klinische behandeling. Er was geen verschil in effect tussen de twee vormen van nabehandeling bij patiënten met de verschillende persoonlijkheidsstoornissen.

Het feit dat bij follow-up patiënten met een cluster A of een cluster B persoonlijkheidsstoornis geen slechtere resultaten hebben dan de patiënten met een cluster C of een gemengde persoonlijkheidsstoornis, is mogelijk veroorzaakt door de selectie van patiënten vooraf. Alle patiënten die geïndiceerd worden voor deze vorm van kortdurende klinische psychotherapie kunnen een focus formuleren in hun problemen, hebben voldoende egosterkte en motivatie en een of meer probleemvrije gebieden (zoals een baan of een voltooide opleiding, een relatie of een stabiele woonsituatie) in hun leven. Deze aspecten zijn wellicht belangrijker bij het effect van klinische psychotherapie gevolgd door nabehandeling, dan de DSM-IV classificatie. Deze uitkomst past ook binnen de huidige discussie om het categoriale DSM-IV systeem te vervangen door een meer integratief dimensioneel model in DSM-V waarbij vier of vijf dimensies van (mal)adaptief persoonlijkheidsfunctioneren worden geïntegreerd in een hiërarchisch model.

Hoofdstuk 4. De invloed van psychologische variabelen op het behandelresultaat.

Vervolgens onderzochten we in hoofdstuk 4 de invloed van verschillende psychologische variabelen op het effect van de klinische behandeling gevolgd door een van de twee vormen van nabehandeling. De volgende psychologische variabelen werden in het onderzoek betrokken: het niveau van afweer (van primitief tot rijp), de vijf persoonlijkheidstrekken van de “Big Five”: extraversie, mildheid, gewetensvolheid, emotionele stabiliteit en autonomie, en

de hoeveelheid sociale steun die patiënten in hun leven ervaren: positieve en negatieve steun en de discrepantie tussen de ervaren en gewenste positieve steun. Onze hypothese was dat er een verband zou zijn tussen een rijp niveau van afweer, tussen emotionele stabiliteit, gewetensvolheid, extraversie en sociale steun en een positief therapie-effect. Via een geavanceerde analysetechniek, Structural Equation Modelling (SEM) werden de structurele relaties tussen de verschillende variabelen geanalyseerd. Zoals verwacht hadden gewetensvolle patiënten en patiënten die veel sociale steun ervaren, minder symptomen bij follow-up. In tegenstelling tot onze hypothese hadden emotionele stabiliteit en extraversie geen invloed, en had het niveau van afweer een omgekeerd effect: patiënten met een minder rijpe afweer hadden minder symptomen bij follow-up dan patiënten met een rijpe afweer. Een verklaring hiervoor zou kunnen zijn dat niet zozeer het niveau maar vooral de flexibiliteit van de afweer van invloed is op het symptoomniveau.

Op de twee andere uitkomstmaten, werk en aantal sessies psychotherapie, was slechts een indirect effect meetbaar: patiënten met minder symptomen werkten meer uren en hadden minder sessies psychotherapie bij follow-up.

Ondanks de at random indeling in ofwel de reïntegratie training ofwel de booster sessies bleken de patiënten in de reïntegratie training at baseline een lager niveau van afweer te hebben en minder positieve steun te ervaren dan de patiënten in de booster sessies. Dit kan ook van invloed zijn geweest op de resultaten.

Hoofdstuk 5. Verschillen tussen wel- en niet succesvolle patienten en dropouts.

Tenslotte is nagegaan in hoeverre een wel- of niet succesvol behandelverloop al te voorspellen is bij opname. Welke patiënten haken af tijdens de klinische behandeling? En welke patiënten zijn succesvol –dat wil zeggen: hebben weinig klachten, hebben betaald werk en zijn niet langer in psychotherapie- bij follow-up? Is dit al te voorspellen at baseline?

In hoofdstuk 5 werd allereerst nagegaan of er verschillen waren tussen de 24 dropouts tijdens de drie maanden klinische behandeling en de 128 patiënten die de klinische behandeling voltooiden. Het bleek dat de dropouts gemiddeld ouder waren dan degenen die de behandeling voltooiden, vaker van het mannelijk geslacht, met meer symptomen bij opname en vaker werkloos; ze scoorden hoger op autonomie. Mogelijk is deze combinatie van kenmerken: oudere, wat eigenwijze mannen zonder werk en met veel symptomen, geen voordeel in een strak gestructureerd klinisch psychotherapeutisch programma waar een coöperatieve houding wenselijk is.

Vervolgens werd voor de drie verschillende uitkomstmaten –symptoomniveau, werk en verdere psychotherapie- nagegaan welke patiënten succesvol waren. In het algemeen waren de succesvolle patiënten jonger, vaker van het vrouwelijk geslacht, ze hadden minder symptomen en vaker betaald werk bij opname. Sommige psychologische variabelen waren voorspellend: patiënten die bij follow-up werk hadden scoorden hoger op autonomie; fulltime werkenden scoorden hoger op autonomie en gewetensvolheid dan parttime werkenden, patiënten met minder symptomen bij follow-up hadden een rijper niveau van afweer. Extraverte patiënten hadden minder symptomen, vaker betaald werk en waren minder vaak nog in psychotherapie bij follow-up. Het symptoomniveau bleek bij follow-up het beste te voorspellen; of men al dan niet nog in psychotherapie was, het slechtste. Uit de follow-up gegevens bleek dat patiënten die nog verdere psychotherapie zochten, vaak een heel specifieke vorm van psychotherapie hadden bijvoorbeeld therapie in verband met relatie- of seksuele problemen, bij problemen op het werk of bij het vinden van werk, of therapie in het alternatieve circuit.

In het klinische programma kan rekening gehouden worden met het gegeven dat bepaalde patiënten meer risico lopen op dropout of een niet-succesvolle behandeling, door bij hen aan het begin het tempo van de behandeling aan te passen en meer aandacht te besteden aan motivatie en het opbouwen van een therapeutische relatie; en in de loop van de behandeling door extra aandacht te besteden aan het hebben of vinden van werk en het opbouwen van een sociaal netwerk. Ook in de nabehandeling zouden deze aspecten aan de orde kunnen komen.

Hoofdstuk 6. Slotdiscussie.

Wat betreft de vergelijking van de twee vormen van nabehandeling is onduidelijk hoe patiënten het zou vergaan zonder enige vorm van nabehandeling. Ook weten we niet hoe effectief een nabehandeling zou zijn met de elementen van de reïntegratie training gegeven door dezelfde therapeuten van de klinische behandeling. Een op maat toegesneden nabehandeling –met aandacht voor werk voor diegenen zonder werk of met werkgerelateerde problemen, of aandacht voor reïntegratie in sociale relaties voor diegenen met een karig netwerk- is evenmin onderzocht.

Wat betreft de voorspellingskracht van de persoonlijkheidsstoornis en de andere psychologische variabelen is de vraag of andere, niet in ons onderzoek betrokken variabelen, meer voorspellend zijn. Hierbij kan worden gedacht aan egosterkte, motivatie, vermogen tot psychologisch denken, interpersoonlijke kwaliteiten of sociale omstandigheden.

Van de drie uitkomstmaten bleek het symptoomniveau de meest krachtige voorspeller; de behoefte aan verdere psychotherapie was het lastigste te voorspellen. Uit de follow-up gegevens bleek dat patiënten vaak een specifieke behandeling zoals relatietherapie zochten als vervolgbehandeling.

Er was een tegenstrijdigheid in de uitkomsten in hoofdstuk 4 en 5. In de Structural Equation Modelling analyse van hoofdstuk 5 bleek extraversie geen predictor voor het therapie-effect, en bleek een rijpe afweer gecorreleerd met een hoog niveau van symptomen bij follow-up. Bij de univariate analyses in hoofdstuk 6 bleek extraversie gecorreleerd met weinig symptomen en fulltime werk bij follow-up, en een rijpe afweer met weinig symptomen. Onze verklaring hiervoor is het gebruik van verschillende analysemethodes in hoofdstuk 4 en 5, en wellicht ook het feit dat ondanks de randomisatie er meer patiënten met een relatief lage afweer aan de reïntegratie training deelnamen.

De in dit onderzoek beschreven groep patiënten is een geselecteerde groep: patiënten met persoonlijkheidsstoornissen, die vaak al een niet-succesvolle psychotherapie achter de rug hadden. Hun klachten kunnen als hardnekkig beschouwd worden; anderzijds zijn deze patiënten gemotiveerd en in staat tot het deelnemen aan een intensief klinisch psychotherapeutisch programma. Er is een duidelijke selectie voorafgaand aan het KKP-programma; ongeveer 50% van de aangemelde patiënten wordt niet toegelaten. De meeste patiënten hebben een middelbare tot hogere opleiding; de meerderheid had betaald werk. Uit deze studie blijkt dat het behandelprogramma juist voor deze geselecteerde groep effectief is. Tegelijk betekent het ook wellicht dat de uitkomsten van dit onderzoek niet gegeneraliseerd kunnen worden tot de gehele groep van patiënten met persoonlijkheidsstoornissen.

Ondanks de randomisatie waren er enkele verschillen tussen de groep patiënten die deelnamen aan de reïntegratie training en diegenen in de booster sessies. De patiënten in de reïntegratie training hadden een minder rijpe afweer en minder sociale steun in hun omgeving. Het aantal drop-outs tijdens de klinische fase, 24 van de 152 patiënten (15.8%) is vergelijkbaar met andere klinisch psychotherapeutische programma's.

De data werden verzameld bij 128 (100%) patiënten tijdens de klinische fase, bij 122 (95.3%) patiënten aan het begin van de nabehandeling, bij 115 (89.8%) patiënten aan het einde van de nabehandeling en bij 105 (84.4%) patiënten bij follow-up, twee jaar na aanvang van de klinische behandeling. Dit hoge percentage maakt de data betrouwbaar.

De meetinstrumenten waren voor het merendeel zelf in te vullen vragenlijsten. De As II persoonlijkheidsstoornissen werden via een interview (SidP) gescoord; de vraag is of met

name de paranoïde persoonlijkheidsstoornis (frequentie: 14 van de 128 patiënten) overgediagnostiseerd is.

In hoofdstuk 5 is Structural Equation Modelling (SEM) gebruikt als methode van analyse. In de toekomst zal wellicht vaker gebruik gemaakt worden van deze methode van analyseren omdat hiermee de theorieontwikkeling op een fundamentele manier gestimuleerd kan worden.

Uit dit onderzoek blijkt dat patiënten met persoonlijkheidsstoornissen kunnen veranderen. Twee jaar na opname functioneert 59% van de patiënten op een normaal niveau wat betreft symptomen; 80% heeft betaald werk en 60% is niet langer in psychotherapie. Het grootste deel van de symptomatische verandering vindt plaats tijdens de eerste drie maanden in de kliniek, wat betekent dat er een goede match is tussen behandelprogramma en patiëntengroep. De vraag is wat voor de minder succesvolle patiënten wel effectief zou zijn: een langere behandelduur, een andere therapiemethode of een meer uitgebreide nabehandeling. In het licht van recente politieke maatregelen in Nederland waarbij patiënten met persoonlijkheidsstoornissen maximaal 50 sessies psychotherapie vergoed krijgt, is een kortdurende klinische psychotherapeutische behandeling wellicht een behandeling die de voorkeur verdient.

Verder onderzoek zou zich kunnen richten op het vergelijken van kortdurende klinische met langerdurende ambulante psychotherapie, op de invloed van therapeut-variabelen en op specifiek werkzame interventies bij bepaalde typen patiënten. De vraag is dan of de Randomised Clinical Trial wel altijd de beste methode is omdat de onderzoeksgroep of de onderzoeksmethode geen afspiegeling is van de dagelijkse praktijk van veel behandelaars. Het doel van dit onderzoek was uiteindelijk om duidelijker ideeën te krijgen over welke behandeling effectief is voor welke patiënt.

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Bijlage.

Nieuwsbrief voor ex-patiënten van de KKP-afdeling die meewerkten aan het onderzoek naar nabehandeling. December 2004.

Inleiding

Aan alle patiënten die tussen mei 1999 en december 2001 werden opgenomen in de KKP-afdeling van de *Viersprong* is gevraagd of zij mee wilden werken aan een onderzoek.

Onderzoek nabehandeling KKP

In dit onderzoek werden twee verschillende vormen van nabehandeling vergeleken:

- twee terugkomdagen met dezelfde therapeuten en dezelfde programma-onderdelen (sociotherapie, psychotherapie en een non-verbale therapie) als tijdens het klinische programma
- zes terugkommiddagen met voor de patiënten onbekende trainers, gericht op terugkeer naar huis, sociale relaties, vrije tijdsbesteding en op het functioneren op het werk.

In totaal hebben 128 patiënten aan het onderzoek meegedaan. In december 2003 waren alle gegevens verzameld. Van 108 patiënten waren alle follow-up gegevens compleet. Op dit moment worden deze gegevens bewerkt tot een aantal wetenschappelijke artikelen, die in Engelstalige tijdschriften gepubliceerd zullen worden. Er zal later ook een Nederlandstalig artikel volgen.

Deze nieuwsbrief is bedoeld om de patiënten die meewerkten aan het onderzoek informatie te geven over een aantal resultaten van het onderzoek.

Dank

Wij willen alle patiënten die aan het onderzoek hebben meegewerkt, bedanken. Door uw medewerking is het mogelijk geweest deze gegevens zo volledig als nu is gebeurd, te verzamelen (we hebben van 84% van de patiënten follow-up gegevens, dat is erg hoog). Dit betekent ook dat de uitkomsten van het onderzoek betrouwbaar zijn.

Resultaten

Deelname aan de behandeling

De deelname aan de nabehandelingsdagen was hoger (84%) dan bij de nabehandelingsmiddagen (65%). De patiënten die bij de nabehandelingsdagen waren ingedeeld, maakten gemiddeld 1.7 van de 2 dagen mee. Van de nabehandelingsmiddagen maakten de patiënten gemiddeld 3.9 van de 6 middagen mee.

In het onderzoek is bekeken in hoeverre patiënten verbeterden op een aantal gebieden, en of er verschillen waren tussen de twee vormen van nabehandeling hierin. Omdat de nabehandelingsmiddagen speciaal gericht waren op werk, was dat een belangrijke uitkomstmaat.

Tabel 1. Overzicht van patiënten die deelnamen aan het onderzoek

Aantal:	128 patiënten
Sekse	34% mannen, 66% vrouwen
Leeftijd	Gemiddeld 36 jaar (20-53 jaar)
Depressie, angst, lichamelijke klachten	91%
Persoonlijkheidsstoornis	98%
Geen psychotherapie in de 2 jaar voor KKP	7%
Ambulante psychotherapie in de 2 jaar voor KKP	79%
Dagbehandeling in 2 jaar voor KKP	5%
Opname in de 2 jaar voor KKP	9%
Opleiding: middelbaar of hoger	94%
Betaald werk	71%
Alleenwonend	50%
Kinderen	20%

Werk.

Voor de totale groep steeg het aantal mensen dat werk had, van 71% vóór opname op de KKP naar 80% twee jaar na de KKP.

Er was een verschil tussen de twee vormen van nabehandeling:

Bij patiënten die deelnamen aan de nabehandelingsdagen had vooraf 68% van de patiënten werk, en bij follow-up, 2 jaar na de start van de KKP-behandeling, 87%.

Bij patiënten in de nabehandelingsmiddagen was er geen verschil: vooraf had daar 75% werk en bij follow-up 74%.

We zijn ook nagegaan of mensen, als ze een betaalde baan hadden, last hadden van klachten tijdens hun werk: of ze zich ziek gemeld hadden, of wel naar hun werk gingen maar last hadden van bijvoorbeeld problemen om zich te concentreren, werk uitstelden of hun werk langzamer deden.

Vóór de KKP behandeling had, van de mensen die werkten, meer dan de helft zich ziek gemeld, en had 30% klachten tijdens het werk. Na de KKP behandeling nam het aantal ziekmeldingen duidelijk af: aan het begin van de nabehandeling had nog maar ongeveer 20% zich ziek gemeld, aan het einde van de nabehandeling ruim 10% en een jaar later nog maar 5%.

Tabel 2. Hoeveel mensen hebben werk?

	Vóór opname KKP	Bij follow-up, 2 jaar na KKP
Nabehandelingsdagen	68%	87%
Nabehandelingsmiddagen	75%	74%
Totale groep	71%	80%

Tabel 3. Ziek of gehinderd bij het werk

	Vóór opname		Begin nabeh.		Einde nabeh.		Follow-up	
	Ziek	Hinder	Ziek	Hinder	Ziek	Hinder	Ziek	Hinder
Nabehandelingsdagen	59%	30%	18%	48%	7%	31%	7%	30%
Nabehandelingsmiddagen	52%	29%	20%	45%	16%	49%	4%	40%
Totale groep	55%	30%	16%	47%	10%	38%	5%	35%

Wel hadden mensen in eerste instantie meer klachten tijdens hun werk: aan het begin van de nabehandeling 47%, aan het einde van de nabehandeling bijna 38% en een jaar later nog steeds ongeveer 35%. Dit betekent dat het lang kan duren voordat mensen weer het gevoel hebben optimaal te kunnen presteren op hun werk.

De verschillen die in de tabel te lezen zijn tussen de nabehandelingsmiddagen en de nabehandelingsdagen, zijn niet significant.

Dit is de eerste keer dat we zo zorgvuldig in kaart gebracht hebben hoe de werksituatie van ex-patiënten was. Tot nu toe gaven de landelijke gegevens uit onderzoek naar effecten van (dag) klinische psychotherapie aan, dat van de KKP-patiënten (van de *Viersprong* en nog twee andere klinieken in het land) slechts ongeveer 30% werk had voor opname. Het aantal patiënten dat werk had, zou een jaar na ontslag nog steeds rond de 30% zijn. Dit gegeven was een van de redenen om het onderzoek naar de twee vormen van nabehandeling te starten. Nu blijkt dus, dat een veel groter aantal mensen, namelijk ruim 70%, werk heeft bij opname. Dit heeft deels met een betere meetmethode te maken: in de landelijke gegevens werden alle patiënten die om welke reden dan ook (werkloos, ziek thuis) niet werkten, in eenzelfde groep ingedeeld. Omdat er zoveel mensen ziek thuis zijn terwijl ze wel een baan hebben, gaf dit dus een vertekende uitkomst.

Verbetering wat betreft klachten

In beide groepen nabehandeling is er een grote verbetering in klachten (zie onderstaand figuur). Opvallend is dat dit niveau bereikt werd bij ontslag en nadien stabiliseerde.

Bij opname zat niemand qua klachten op het niveau van de gemiddelde Nederlander; bij follow-up, twee jaar na de KKP zat 59% van de 108 patiënten van wie we follow-up gegevens hadden, op een gemiddeld (gezond) niveau. Een heel mooi resultaat!

Figuur 1.

SCL-90, Symptom Check List:

90 vragen over klachten en symptomen; minimumscore 90, maximum 450.

Men scoort als gemiddeld –gezond bij een score van 115 of lager (voor mannen) en bij een score van 129 of lager (voor vrouwen).

Verdere psychotherapeutische hulp

Ook hierin zien we een spectaculaire daling als we de situatie in de twee jaar voor opname vergelijken met die in de twee jaar na ontslag. We hebben op drie momenten aan patiënten gevraagd hoeveel hulp ze gezocht hebben, afgezien van de nabehandeling (begin en einde van de nabehandeling en een jaar later, bij follow-up). Dit hebben we bij elkaar opgeteld en vergeleken met de hoeveelheid hulp in de twee jaar voor opname.

Ruim eenderde van de patiënten heeft helemaal geen hulp meer gehad in de twee jaar na ontslag, en nog eens ruim eenderde 15 sessies of minder. Vaak gaat het dan om enkele gesprekken met de verwijzer, of een korte, gerichte therapie voor een bepaald probleem. Slechts ruim een kwart van de patiënten heeft nog duidelijk meer psychotherapie gehad in de twee jaar na de KKP. Meestal gaat het dan om ambulante behandeling; slechts 5 patiënten (5%) hebben dagbehandeling of een opname elders na de KKP, in vergelijking met 17 patiënten (13%) in de twee jaar voor de KKP-opname.

	Nabehandelingsdagen		Nabehandelingsmiddagen	
	Twee jaar vóór	Twee jaar na KKP	Twee jaar vóór	Twee jaar na KKP
Helemaal geen psychotherapie	2%	39%	11%	33%
15 sessies of minder	29%	35%	31%	40%
Tussen de 16 en 30 sessies	29%	14%	22%	13%

Meer dan 30 sessies	25%	12%	26%	7%
Dagbehandeling	6%	0%	2%	4%
Opname	10%	2%	9%	4%

Conclusie

Onze conclusie is dat voor een grote groep patiënten de KKP opname plus de nabehandeling een grote verbetering geeft, zowel op het gebied van werk, van klachten als van verdere psychotherapeutische hulp.

De nabehandelingsdagen, bij de eigen therapeuten en met hetzelfde programma als de KKP, scoren daarbij iets beter, zowel wat betreft de deelname van patiënten als wat betreft de werkhervatting. Dit is tegen onze verwachting in: wij hadden verwacht dat de specifieke training rond werk van de nabehandelingsmiddagen beter resultaat zou hebben wat betreft werkhervatting dan de terugkomdagen.

Wij denken dat dit te verklaren is door het feit dat patiënten het prettiger vinden om bij de eigen therapeuten een terugkomdag of middag te hebben, dan bij vreemde therapeuten. Zelfs als de inhoud van deze terugkommiddagen leerzaam is, bijvoorbeeld over het omgaan met problemen rond het werk, weegt dit niet op tegen het contact met de eigen therapeuten.

Dit zou betekenen dat als wij –of anderen- in de toekomst nabehandeling organiseren, we dit bij voorkeur zullen doen met de eigen therapeuten. De vraag is dan of, als de eigen therapeuten meer gericht aandacht besteden aan bijvoorbeeld werkhervatting of sociaal functioneren, het effect wellicht nog beter is.

Vragen en opmerkingen.

Met eventuele vragen en opmerkingen kunnen jullie terecht bij:

de onderzoeker Moniek Thunnissen, moniek.thunnissen@ggzwnb.nl, of bij

Jos Delimon, manager afdeling volwassenen, jos.delimon@deviersprong.nl

Dankwoord,

Beste Wim Trijsburg, zonder jou was dit proefschrift nooit tot stand gekomen. Toen ik heel wat jaar geleden voor het eerst bij je kwam met een onderzoeksplan, keek je bedenkelijk, en er is dan ook veel tijd overheen gegaan voordat het onderzoeksvoorstel genade kon vinden in jouw ogen. Je hebt je ingezet om iedereen –directie en medewerkers van de Viersprong en promotoren- op één lijn te krijgen zodat het onderzoek uiteindelijk in 1999 van start kon gaan. De fase van het schrijven van de artikelen en het samenstellen van het proefschrift was soms moeizaam; dank voor je geduld en zorgvuldige commentaar.

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De directie van de Viersprong in de persoon van Sjouk Hartman, de toenmalige manager van de afdeling Volwassenen Jos Delimon en de toenmalige manager van de afdeling onderzoek, Ab Hesselink, wil ik danken voor hun meedenken in en daadwerkelijke bijdrage, financieel en in tijd, aan het onderzoek. Jullie trokken soms aan de rem, wat ik meestal pas achteraf kon waarderen; de onderzoeksopzet is daar absoluut door verbeterd.

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Curriculum Vitae.

Moniek Thunnissen werd geboren op 1 juni 1955 in Eindhoven. Na het gymnasium-B studeerde zij geneeskunde in Nijmegen van 1973 tot 1981 en behaalde het arts-examen. Gedurende twee jaar was zij werkzaam als arts-assistent niet in opleiding: van 1-1-1982 tot 1-7-1983 in *Huize Padua* in Boekel (opleider Dr.J.Brocken) en van 1-7-1983 tot 31-12-1983 in de polikliniek kinderpsychiatrie *Reinier van Arkel* (opleiders A.Janssen en Prof. Dr. G.Zwanikken). Vervolgens deed zij haar specialisatie tot psychiater in het toenmalige Psychiatrisch Ziekenhuis *Veldwijk* (momenteel *Meerkanten*) in Ermelo (opleider Dr. L.Boerman) van 1-1-1984 tot 1-1-1987. Daarna deed zij haar keuzestage psychotherapie in het Centrum voor Psychotherapie de *Viersprong* in Halsteren (opleider prof. dr. P.Jongerus), waar zij na haar registratie tot psychiater (1988) vervolgens bleef werken als psychiater. Zij begon in de afdeling voor Kortdurende Klinische Psychotherapie, de in dit proefschrift beschreven afdeling en werkte daar van 1988 tot 1996. In die periode was zij gedurende een jaar interim chef de clinique van deze afdeling. In 1993 werd zij opleider voor de keuzestage psychotherapie (in de opleiding tot psychiater). Van 1996 tot 2002 was zij werkzaam in het 12-maands programma van Psychotherapeutisch Centrum de Viersprong en werkte daar mee aan de introductie van de schematherapie (Jeffrey Young) als behandelmethode op deze afdeling.

In 2003 werd zij aangetrokken als beoogd A-opleider in GGZ WNB te Bergen op Zoom, alwaar zij de A-opleiding (de 4 ½ jaar durende opleiding tot psychiater) opzette. In mei 2004 werd deze opleiding door de Medisch Specialisten Registratie Commissie (MSRC) erkend. Zij voltooide de opleiding tot groepspsychotherapeut (1992), systeemtherapeut (2006) en tot trainer en supervisor in de transactionele analyse (1996). Zij maakte deel uit van de redactie van het Tijdschrift Groepspsychotherapie (1988-1996) en van de sectie Psychotherapie van de Nederlandse Vereniging voor Psychiatrie (1998-2005). Zij was voorzitter van de Nederlandse Vereniging voor Transactionele Analyse (1998-2002).